OkiLAN 8300e Network Print Server

Network User's Guide
C6000n
C6100 Series

59385005

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Document Information

OkiLAN 8300e Network User's Guide, C6000n and C6100 Series

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Configuration

Introduction

The OkiLAN Internal Print Server is a fast 100BASE-TX/10BASE-T network interface.

This network print server supports IEEE802.2, IEEE802.3, Ethernet-II and SNAP and can detect those frame types automatically.

Also, it supports major protocols such as TCP/IP, EtherTalk, NetBEUI, Netware, Appletalk, and Rendezvous/Bonjour.

This section details the specification and several software utilities.

For multiple emulation printers, change the emulation in the Printer Menu settings to Auto or PS before printing the self-diagnostic test and settings.

Specifications

CPU	Falcon
Frame types	IEEE 802.2 IEEE 802.3 Ethernet-II, SNAP, AUTO
Network interface	100BASE-TX 10BASE-T
Network protocols	TCP/IP Network layer ARP, RARP, IP, ICMP, IPV6, UPnP, AutoIP Session layer TCP, UDP Application layer LPR, FTP, TELNET, HTTP, IPP, BOOTP, DHCP, SNMP, SMTP, NCP, SAP, NLSP, RIP, NDS, NDPS, SPXII, Pure IP, SMP on TCP/IP, SMB on NetBEUI IPX/SPX (NetWare) Remote printer mode (up to eight file servers and 32 queues) Print server mode (up to eight print servers) Encrypted password supported in print server mode SNMP EtherTalk ELAP, AARP, DDP, AEP, NBP, ZIP, RTMP, ATP NetBEUI SMB, NetBIOS DDNS, WINS, Rendezvous/Bonjour
Functions	Self-diagnostic test printing Banner supported Monitoring/configure by Web browser Printer status notification by E-Mail

Self-diagnostic test

With the printer power switched on, press the print server test button for more than three seconds and release. The self-diagnostic test results and configuration settings are printed.

Printed self-diagnostic test sample

If "NG" is displayed instead of "OK" see the "Troubleshooting" chapter.

Printed configuration settings sample

Network Information

Printer Information

Printer Name	OKI-C6100-547529
Printer Serial Number	
Printer Asset Number	

General Information

Network Model	OkiLAN 8300e		
Firmware Version	e0.36	Web Remote	w0.12
File Version (WE / WJ / DEF / LND / LNO)	00.12 / 00.12 / 00.0C / 00.0B / 00.0B		
DLM Version (PNL / WEB / NIF)	B0.05 / 00.07 / 00.0D		
MAC Address	00:80:87:54:75:29		
HUB Link Setting	AUTO NEGOTIATION		
HUB Link Status	LINK FAIL		
Network Status	Unicast Packets Received	Unsendable Packets	
	Packets Transmitted	Bad Packets Received	
	Total Packets Received		
Protocol ON/OFF			
TCP/IP	ENABLE	NetWare	ENABLE
NetBEUI	ENABLE	EtherTalk	ENABLE

TCP/IP Configuration

IP Address Set	MANUAL
IP Address	192.168.1.101
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
WINS Server (Primary)	0.0.0.0
WINS Server (Secondary)	0.0.0.0
WINS Registration Status	Registration of a name is successful.
DNS Server (Primary)	0.0.0.0
DNS Server (Secondary)	0.0.0.0
Dynamic DNS	DISABLE
DDNS Host Name	C6100-547529
DDNS Domain Name	
DDNS Registration Status	

Auto Discovery

Windows	ENABLE
Macintosh	ENABLE
Printer Name(Printer is identified by this name.)	OKI-C6100-547529

NetWare Configuration

NetWare Mode	Queue Server Mode(Print Server + Bindery/NDS + IPX)
Frame Type	AUTO
Network No.	00000000
P-Server Mode	
Print Server Name	OKI-C6100-547529-PS
Job Polling Rate	4 Sec
Bindery Mode	ENABLE
NDS Mode	
Tree Name	
Context Name	
R-Printer Mode	
Printer Name	OKI-C6100-547529-PR
Job Timeout	10 Sec

EtherTalk Configuration

EtherTalk Printer Name	C6100
Type Name	LaserWriter
Zone Name	
Address	
Node	

NetBEUI Configuration

Short Printer Name	C6100-547529
Workgroup Name	PrintServer
Comment	EthernetBoard OkiLAN 8300e
Master Browser	

Email Configuration

Email Send Settings	
SMTP Send	DISABLE
SMTP Server Name	
Printer Email Address	
Reply-To Address	
SMTP Port Number	25
SMTP-Auth	DISABLE
SMTP Server User ID	
Email Alert Settings	
Email Address 1	
Email Address 2	
Email Address 3	
Email Address 4	
Email Address 5	

SNMP Trap Configuration

Printer Trap Community Name	public

Trap Destination	Function	Address
Address1	DISABLE	0.0.0.0
Address2	DISABLE	0.0.0.0
Address3	DISABLE	0.0.0.0
Address4	DISABLE	0.0.0.0
Address5	DISABLE	0.0.0.0
IPX	DISABLE	00000000:000000000000

IPP Configuration

IPP Service	DISABLE
Charset	UTF-8
Language	EN-US
Authentication	NONE

Time/SNTP Configuration

Time Protocol Settings	
SNTP Protocol	DISABLE
NTP Server(Primary)	
NTP Server(Secondary)	
Adjust Interval	1 hour
Local Timezone Settings	
Local Time Zone	00:00
Daylight Saving Settings	
Daylight Saving	DISABLE

Security

Service ON/OFF			
Web	ENABLE	SNMP	ENABLE
Telnet	DISABLE	SNTP	DISABLE
FTP	DISABLE		
IP Filtering	DISABLE		
MAC Address Filtering	DISABLE		
Cipher(SSL/TLS)	DISABLE		
Cipher Strength	STANDARD		
Certificate Information			
Certificate Type			
The term of validity			

Maintenance

LAN Scale Setting	NORMAL

Configuration Utility

Available utilities

You can configure the print server by using one of the following methods:

Utility	Features	System requirements
Quick Setup	Configure the print server easily and simply without installing any software packages into your system. You can set the following: Enable/disable TCP/IP, NetWare, EtherTalk, NetBEUI protocols. > Set IP address, Subnet Mask and Gateway for TCP/IP manually or by using DHCP. > Set NetWare Mode and create Queue/Print Server/Printer objects. > Zone name and Port name for EtherTalk.	Windows95/98/Me/NT4.0/ 2000/XP (TCP/IP protocol or IPX/SPX protocol should be installed). To create a NetWare queue, NetWare Client 32 or IntranetWare Client should be installed in your system.
Web browser	Configure the print server and printer by using a Web browser such as Microsoft Internet browser or Netscape Navigator.	Microsoft Internet Explorer Version 3.0 and higher or Netscape Navigator Version 3.0 and higher. Operating system that supports Web browser.
AdminManager	Configure the print server in detail.	Windows95/98/Me/NT4.0/ 2000/XP (TCP/IP protocol or IPX/SPX protocol should be installed). to create a NetWare queue, NetWare Client 32 or IntranetWare Client should be installed in your system.
TELNET	Configure the print server using TELNET.	Third-party vendor developed TELNET client package. A TELNET Application is standard in Windows/UNIX/ Linux.

Utility	Features	System requirements
SNMP	The printer and print server can be controlled using third-party vendor developed SNMP application.	Third-party vendor developed SNMP application.

Using Quick Setup

Quick Setup utility allows you to configure the print server easily and simply without installing any software packages.

You can configure the following:

> Enable/disable TCP/IP, NetWare, EtherTalk, NetBEUI protocols.

> Set IP address, Subnet Mask and Gateway for TCP/IP manually or by using DHCP.

> Set NetWare mode and create Queue/Print Server/Printer objects.

> Zone name and Port name for EtherTalk.

Configuration requires a PC with Windows 95/98/Me, Windows 2000 Advanced Server/Professional or Windows NT Server 4.0/ Work-station 4.0, Windows XP running TCP/IP or IPX/SPX (NetWare).

This utility can only be used on a PC that can be connected to the network with TCP/IP or IPX/ SPX.

This utility must be used on a PC that is located in the same segment as the printer. To create a NetWare queue, NetWare Client 32 or IntranetWare Client should be installed in your system.

The following explanation uses Windows 98 as an example.

1. Insert the CD-ROM provided with your printer into the CD-ROM drive.

   If the Menu Installer does not start automatically, click Start→Run→Browse. Browse to your CD-ROM and click Setup→Open→OK.

2. Select [Optional Utilities]

3. Select [Install Quick Setup Utility].

4. Select the language.

5. Select OKI Device Quick Setup.

s

6. Follow the on-screen instructions.

> The NetWare Client 32 or IntranetWare Client should be installed on the PC used for the creation of network queues. Installation enables the user to create network queues and perform other functions.

7. If the settings are correct, click [Execute]. The new settings are transmitted to the network card but the network card is still operating with pre-transmission settings.

8. Click [Finish] to validate the new settings. Depending on the model, the printer may have to be switched off and on again.

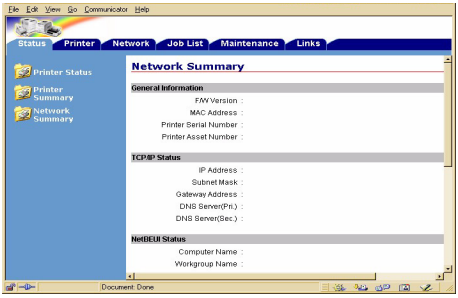
Using a Web browser

If the print server is connected to the network using TCP/IP, its settings and the printer menu settings can be configured using a Web browser, such as Microsoft Internet Explorer Version 4.0 and higher, or Netscape Navigator version 4.0 and higher. No guarantees are offered for other browsers. Refer to the relevant manuals for details of how to launch and use the browser.

The network addresses used in this manual are shown as examples only. Network addresses used in your installation must be generated from your own network. To apply configuration changes using a Web browser, you will be prompted for a username and password.The username is [root] and the default password is the last six digits of the Ethernet address.

The following explanation uses Windows 95 and Microsoft Internet Explorer version 4.0 as an example.

1. Configure the IP Address, Subnet Mask and Gateway for the network card. Launch the Web browser, enter the IP Address of the network interface card in [Address (Location/ Position)] and press the [Enter] key. The Printer Status screen is displayed.



2. Click on a tab to see a particular Category, then click the items you want to change in the left column. For more details of corresponding items in WEB and TELNET

equivalents, see the description in the Configurable Items and Default Values table starting on page 51.

3. To ensure correct operation, follow the procedure below for the appropriate network browser.

Microsoft Internet Explorer

a. Select [Internet Options] in the [Tools] menu.

b. Click on the [General] tab and click [Settings] in [Temporary Internet files].

c. Select [Every visit to the page] in [Check for newer versions of stored programs].

Netscape Navigator

a. Select [Settings] in the [Edit] menu

b. Click [Cache] in [Details].

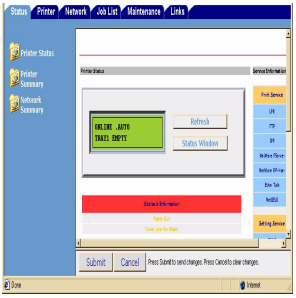
c. Select [Once per session] in [Document in cache is compared to document on network].

If you change the window size of the browser immediately after changing the configuration, [Security information] may be displayed. Uncheck [Display this message next time] in the dialogue.

4. After making changes, click [Submit].

5. Enter [root] in User name and your password (default is the last six digits of the Ethernet address) in Password and click [OK].

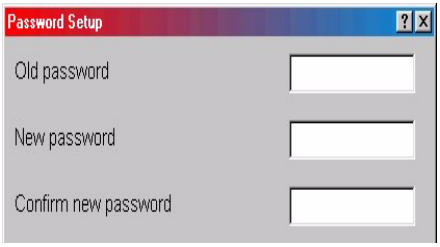
6. After the new values are transmitted to the network card, the following screen is displayed. If a different message is displayed, check the settings.



For example: For Ethernet address 00:80:92:01:00:D2, a default password is [0100D2]. The Ethernet address (MAC address) is displayed during the self-diagnostic test.

The root password can be changed to allow you to configure the print server and printer by using a Web browser. The default password is the last six digits of the MAC address.

To change the root password for configuration via a Web browser, access [http://OKILAN IP address or hostname>/ system_password.htm]. After inputting the current root password, this screen is displayed:



Input a new root password in [New Admin Password] and [Confirm New Admin Password] then select [Submit] button.

The root password for configuration via Web browser is different for AdminManager/TELNET/FTP. These passwords can be set in AdminManager or TELNET.

Standard Setup Using AdminManager

AdminManager is a powerful Microsoft Windows-based utility to configure all print server functions by using a graphical user interface.

Configuration requires a PC with Windows 95/98/Me, Windows 2000 Advanced Server/Professional or Windows NT Server 4.0/ Work-station 4.0, Windows XP running TCP/IP or IPX/SPX (NetWare).

This utility can only be used on a PC that can be connected to the network with TCP/IP or IPX/ SPX and must be used on a PC that is located in the same segment as the printer.

To create a NetWare queue, NetWare Client 32 or IntranetWare Client should be installed on to your system.

The following explanation uses Windows 98 as an example.

Installation

The following explanation uses Windows 98 as an example.

1. Insert the CD-ROM provided with your printer into the CD-ROM drive.

   If the Menu Installer does not start automatically, click Start→Run→Browse. Browse to your CD-ROM and click Setup→Open→OK.

2. Select [Optional Utilities]

3. Select [Install Quick Setup Utility].

4. Select the language.

5. Select OKI Device Standard Setup.

6. Follow the on-screen instructions. If you want to install AdminManager on your local drive, select [Install and Execute]. Otherwise, select [Execute from CD-ROM].

Interface

Select [Start]→[Programs]→[OKI Setup Utility]→[Admin Manager].

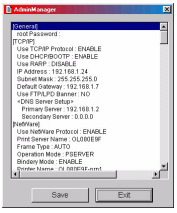
File menu

In the [File] menu, the following item can be selected:

Item	Function
Search	Search printers in your network and list all printers that have the OkiLAN installed.

Status Menu

In the [Status] menu, the following items can be selected:

Item	Function
Printer Status	Current printer status is displayed: 
System Status	Displays current OkiLAN configuration. Configuration data can be saved as log file. 
List of Configuration Items	Displays current configuration. Configuration data can be saved as log file. 

Setup Menu

In this menu, the following items can be selected:

Item	Function
Oki Device Setup	Configure the OkiLAN.
Setup by HTTP	Launch the default browser in your environment to access the selected printer's web page.
Setup by TELNET	Launch TELNET application in your environment to access the selected printer's TELNET port. Note: The TELNET application is not included as part of the OkiLAN package. Install the TELNET package on to your system. For further information, see your Windows manual.
Create Netware Queue	Create a NetWare queue.
Delete NetWare Object	Delete NetWare object.
Reset	Reset the selected network interface card.
Test Print	Print self-diagnostic test pages.
IP Address Setup	Set static IP address of network interface card manually.

Oki Device Setup

In this section you can configure the print server. It contains details for the following selectable tabs:

> General

> TCP/IP

> Netware

> EtherTalk

> NetBEUI

> SNMP

> E-Mail (Send)

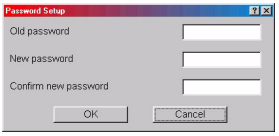
> SMTP

> Maintenance

The following section explains each tab’s functionality.

General Tab

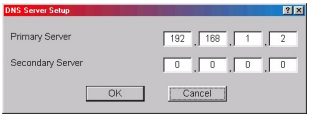
This allows you to set or change the root password used for Admin Manager, TELNET and FTP.

Location	Comments
Change root password	You can set/change the root password for AdminManager, TELNET and FTP. 

TCP/IP Tab

This allows you to configure TCP/IP related items.

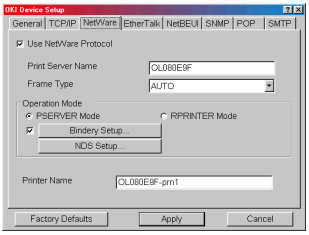
Location	Comments
Use TCP/IP Protocol	Set TCP/IP protocol as enabled/disabled.
Use DHCP/BOOTP	Check this item if IP address, subnet mask, default gateway and IP addresses for DNS primary server and secondary servers are retrieved from the DHCP or BOOTP server. Otherwise, clear.
IP Address	Set the IP address of the selected network interface card.
Subnet Mask	Set the subnet mask of the selected network interface card.
Default Gateway	Set the default gateway of the selected network interface card.

Location	Comments
DNS Server . . .	Set IP addresses for DNS primary and secondary servers, and allows you to use DDNS. 
Auto Discovery	Use Network PnP, use Bonjour, set Device Name.
WINS Server	Set Primary Server, Secondary Server, Scope ID.

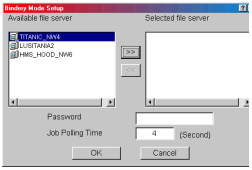
To find corresponding items in WEB and TELNET, see the equivalent in the Configurable Items and Default Values table that starts on page 51.

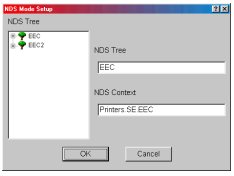
Netware Tab

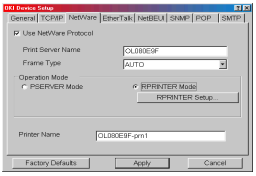
This is where you can configure NetWare related items.

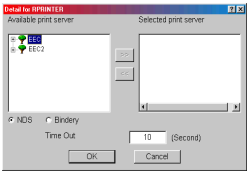


Location	Comments
Use NetWare Protocol	Set NetWare protocol as enabled/disabled.
Print Server Name	Set Print Server name.
Frame Type	Set primary NetWare frame type.
Operation Mode	Set NetWare mode.
Check box besides Bindery Setup	Check if you want to use the Bindery mode and Bindery Setup button becomes available. If it is unchecked, the button is greyed out.

<table>
<tr><th>Location</th><th colspan="2">Comments</th></tr>
<tr><td>Bindery Setup</td><td colspan="2">Configure items related to Bindery mode.
 

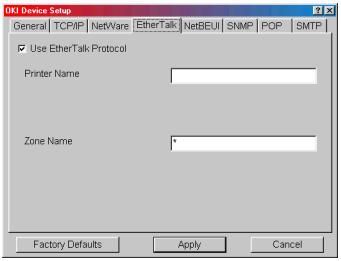
In this dialogue box, the following items can be configured.</td></tr>
<tr><td></td><td>Available File Server and Selected File Server.</td><td>Select file servers to connect. Up to eight file servers can be selected. Select a server from Available file server list and click >>. The server is copied to Selected file server box.</td></tr>
<tr><td></td><td>Password.</td><td>Set password for Print Server.</td></tr>
<tr><td></td><td>Job Polling Time.</td><td>Set print job polling interval in seconds.</td></tr>
<tr><td>NDS Setup</td><td colspan="2">Set NDS tree and context where Print Server was created.
 
</td></tr>
</table>

<table>
<tr><td>Location</td><td colspan="2">Comments</td></tr>
<tr><td>RPRINTER Setup</td><td colspan="2">Available if you select RPRINTER mode in Operation Mode.
 

By selecting the [RPRINTER] button, this is displayed:
 
</td></tr>
<tr><td></td><td>NDS or Bindery</td><td>Show the Available print server tree in NDS mode or Bindery mode.</td></tr>
<tr><td></td><td>Available print server and Selected print server</td><td>Select file servers to connect. Up to eight file servers can be selected. Select a server from Available file server list and click >>. The server is copied to Selected file server box.</td></tr>
<tr><td></td><td>Time Out</td><td>Set duration from the last data’s arrival to freeing of the port in seconds.</td></tr>
<tr><td>Printer Name</td><td colspan="2">Set the NetWare printer object name.</td></tr>
</table>

EtherTalk Tab

This allows you to configure EtherTalk related items.



Location	Comments
Use EtherTalk Protocol	Set EtherTalk protocol to enabled/disabled.
Printer Name	Set EtherTalk Printer object name.
Zone Name	Set the zone name to which the OkiLAN belongs.

NetBEUI Tab

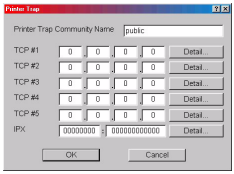
This allows you to configure NetBEUI related items.

Location	Comments
Use NetBEUI Protocol	Set NetBEUI protocol to enabled/disabled.
Short Printer Name	Set a computer name for the OkiLAN.
Workgroup	Set a work group name to which the OkiLAN belongs.
Comment	Set the comments for the OkiLAN.

SNMP Tab

This allows you to configure SNMP related items.

Location	Comments
SNMPv1 Settings	Community names: SNMP Write Community, SNMP Read Community.
SysContact	Set SysContact (printer manager) name.
SysName	Set SysName (printer model name).
SysLocation	Set SysLocation (the location where the printer is installed).

<table>
<tr><th>Location</th><th colspan="3">Comments</th></tr>
<tr><td>Printer Trap Setup . . .</td><td colspan="3">By selecting the button, the following dialogue box is displayed:
 

In the dialogue box, the following items can be configured:</td></tr>
<tr><td></td><td>Printer Trap Community Name</td><td colspan="2">This community name is assigned to outgoing printer status traps such as off-line, paper out, etc.</td></tr>
<tr><td></td><td>TCP#1—5</td><td colspan="2">Set the IP address to which a Trap packet will be sent. You can set up to five IP addresses.</td></tr>
<tr><td></td><td>Detail . . .</td><td colspan="2">By selecting the Detail button, the following items can be configured:</td></tr>
<tr><td></td><td></td><td>Trap Enable</td><td>Set sending a Trap packet, enabled or disabled, for each destination.</td></tr>
<tr><td></td><td></td><td>Printer Reboot</td><td>Set sending a Trap, enabled or disabled, when the printer restarts.</td></tr>
<tr><td></td><td></td><td>Receive Illegal</td><td>Set sending a Trap, enabled or disabled, when illegal data is received.</td></tr>
<tr><td></td><td></td><td>On-Line</td><td>Set sending a Trap, enabled or disabled, when the printer turns to On-Line.</td></tr>
<tr><td></td><td></td><td>Off-Line</td><td>Set sending a Trap, enabled or disabled, when the printer turns to Off-Line.</td></tr>
<tr><td></td><td></td><td>Paper Out</td><td>Set sending a Trap, enabled or disabled, when paper is out.</td></tr>
</table>

Location	Comments		
Printer Trap Setup . . .	Detail . . .	Cover Open	Set sending a Trap, enabled or disabled, when the printer cover opens.
		Printer Error	Set sending a Trap, enabled or disabled, when any errors occur.
	IPX	Set node address and network address to which a Trap packet will be sent.	
	Detail . . .	By selecting the Detail button, the following items can be configured:	
		Trap Enable	Set sending a Trap packet, enabled or disabled, for each destination.
		Printer Reboot	Set sending a Trap, enabled or disabled, when the printer restarts.
		Receive Illegal	Set sending a Trap, enabled or disabled, when illegal data is received.
		On-line	Set sending a Trap, enabled or disabled, when the printer turns to On-Line.
		Off-line	Set sending a Trap, enabled or disabled, when the printer turns to Off-Line.
		Paper Out	Set sending a Trap, enabled or disabled, when paper is out.
		Paper Jam	Set sending a Trap, enabled or disabled, when a paper jam occurs.

Location	Comments		
Printer Trap Setup . . .	Detail . . .	Cover Open	Set sending a Trap, enabled or disabled, when the printer cover opens.
		Printer Error	Set sending a Trap, enabled or disabled, when any errors occur.

E-Mail (Send) Tab

In E-Mail Tab, you can configure SMTP related items.

Location	Comments
Use SMTP Transmit Protocol	Set sending E-mail via SMTP, enabled or disabled.
SMTP Server Name	Set Server name.
Priinter E-mail Address	Set the E-mail address that is used in the [From] field in the mail header.
Destination Address 1 - 5	Set E-mail addresses to where E-mail should be send. Up to five E-Mail addresses can be set. Set Notify Mode. Set Event Mode.
Attach Info	Set information to attach.
Authentication	Set User ID and Password.
Comments	Add comments
Others	Set SMTP port number and Reply-To address

SMTP Tab

In SMTP Tab, you can configure SMTP related items.

Location	Comments
Use SMTP Transmit Protocol	Set sending E-mail via SMTP, enabled or disabled.
NTP Server 1 Address	Set Server 1 address.
NTP Server 2 Address	Set Server 2 address.
Adjust Interval	Set interval that OkiLAN checks specified events: 1, 12, or 24 hours.
Local Time Zone	Set time.
Daylight Saving	Set Daylight Saving time.

Maintenance Tab

In Maintenance Tab, you can configure the following:

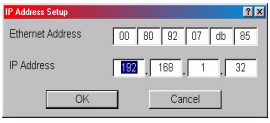
<table>
<tr><td>Location</td><td colspan="3">Comments</td></tr>
<tr><td>LAN Scale</td><td colspan="3">Set LAN Scale (normal/small)</td></tr>
<tr><td rowspan="6">IP Filter Setup</td><td rowspan="6">Detail...</td><td colspan="2">By selecting the button, the following items can be configured:</td></tr>
<tr><td>Configuration</td><td></td></tr>
<tr><td>Admin IP address</td><td></td></tr>
<tr><td>IP Address Range</td><td></td></tr>
<tr><td>Start/End Address</td><td></td></tr>
<tr><td>Printing</td><td></td></tr>
<tr><td rowspan="10">Service</td><td rowspan="10">Detail...</td><td colspan="2">By selecting the button, you can setup the following service:</td></tr>
<tr><td colspan="2">Use TCP/IP Protocol</td></tr>
<tr><td colspan="2">Use NetBEUI Protocol</td></tr>
<tr><td colspan="2">Use FTP Service</td></tr>
<tr><td colspan="2">UseTelnet Service</td></tr>
<tr><td colspan="2">Use Web Service</td></tr>
<tr><td colspan="2">Use IPP Service</td></tr>
<tr><td colspan="2">Use SNMP Service</td></tr>
<tr><td colspan="2">Use SMTP Transmit</td></tr>
<tr><td colspan="2">Use encrypted communidation for configuration data</td></tr>
</table>

IP Address Setup

If you only use TCP/IP and the OkiLAN has not yet been configured, occasionally it may not be displayed on AdminManager. You can configure the IP address of the OkiLAN by this function.

1. Select [IP Address Setup] from the [Setup] menu.

2. Set [Ethernet Address] and [IP Address] and select [OK].

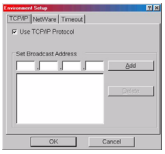
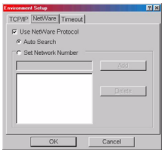
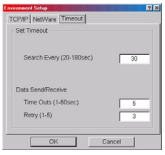


> The Ethernet Address (MAC address) is displayed during the self-diagnostic test.

3. AdminManager asks whether you want to initialize the network interface card or not. Select [Yes]. Even if you select [No] here, the IP address that you set can be used after turning the printer OFF and ON. The requirement to turn your printer OFF and ON is dependent on the network interface card.

Option Menu

In the [Option] menu, the following item can be selected:

Item	Function	
Use TCP/IP Protocol	If this item is selected, AdminManager uses TCP/IP protocol to search/configure network interface cards.	
Use IPX/SPX Protocol	If this item is selected, AdminManager uses IPX/SPX protocol to search/configure network interface cards.	
Environment Setup	TCP/IP Tab 	Set broadcast addresses that are used to search OKI network interface cards using the TCP/IP protocol. If [Use TCP/IP protocol] is unchecked, the search will not be carried out using TCP/IP.
	NetWare Tab 	Set network addresses that are used to search OKI network interface cards via NetWare protocol. If there any many NetWare file servers on your network, specify the network address to which the network card belongs. If [Use NetWare protocol] is unchecked, the search will not be carried out using NetWare, but if [Auto Search] is selected, AdminManager will search all networks that AdminManager can detect.
	SNMP Tab	Obtain the printer name via SNMP; Set Community Name.
	TimeOut Tab 	[Search Every]: Set response waiting time from a network card in seconds. [Time Out]: Set time out between AdminManager and the network interface card in seconds. [Retry]: Set how many times the retry will be carried out between AdminManager and the network interface card.

Help Menu

In the [Help] menu, [About] is available as well as revision information for AdminManager.

Using TELNET

The OkiLAN can be configured using TELNET. TELNET requires the OkiLAN to have a valid IP address configured. If the NIC already has an IP address configured, skip steps one to three below.

> Note: Please ensure that a valid IP address for you network environment is used. Use of an incorrect IP address can cause serious problems on your network.

The following explanation uses Sun Solaris 2.4 as an example. The method of configuring commands may differ between workstations. Refer to the workstation's manual.

1. Login as [root].

If you do not have Superuser rights, the network manager should run the configuration.

2. Set a temporary IP Address on the NIC using the ARP command.

Example: for IP address 172.168.20.127 and network card address 00:80:92:01:00:D2

 # arp –s 172.168.20.127 00:80:92:01:00:D2 temp

The Ethernet address (MAC address) is displayed during the self-diagnostic test. A temporary address does not need to be set if an IP address has already been set.

3. Use the PING command to confirm the connection with the network card.

Example: for IP address 172.168.20.127

 # ping 172.168.20.127

If there is no reply, there is a problem with the configuration of the IP address (the IP address has been already set manually or by the

DHCP/RARP server), or with the network. Reset the network interface card settings to default and try to set temporary IP address. If you still have the problem after resetting the network interface card, consult the network manager.

4. Login to the network card using TELNET.

Example: for IP address 172.168.20.127

$ telnet 172.168.20.127

Trying 172.168.20.127

Connected to 172.168.20.127

Escape character is '^]'.

EthernetBoard OkiLAN PRINTER".

login: **root**

'root' user needs password to login.

password:

User 'root' logged in.

No. Message Value (level.1)

1: Setup TCP/IP

2: Setup SNMP

3: Setup NetWare

4: Setup EtherTalk

5: Setup NetBEUI

6: Setup printer port

7: Display Status

8: Setup printer trap

9: Setup SMTP (E-Mail)

97: Reset to factory set

98: Quit setup

99: Exit setup

Please select (1-99)?

5. Enter the number of the items to be changed and the details screen for that item is displayed. The menu has the following hierarchical structure so for more details see the description in the appropriate numbers

Telnet hierarchical structure

Level1	Level2	Level3	Ref No.
1: Setup TCP/IP	1: TCP/IP protocol	—	TCPIP-1
	2: IP address	—	TCPIP-2
	3: Subnet	—	TCPIP-3
	4: Gateway	—	TCPIP-4
	5: RARP protocol	—	TCPIP-5
	6: DHCP/BOOTP protocol	—	TCPIP-6
	7: DNS server(Pri.)	—	TCPIP-7
	8: DNS server(Sec.)	—	TCPIP-8
	9: Root password	—	TCPIP-9
	99: Back to prior menu	—	—
2: Setup SNMP	1: Authentic community	—	SNMP-1
	2: Trap community	—	SNMP-2
	3: Trap address	—	SNMP-3
	4: SysContact	—	SNMP-4
	5: SysName	—	SNMP-5
	6: SysLocation	—	SNMP-6
	7: DefaultTTL	—	SNMP-7
	8: EnableAuthenTrap	—	SNMP-8
	99: Back to prior menu	—	—

Level1	Level2	Level3	Ref No.
3: Setup NetWare	1: NetWare protocol	—	NetWare-1
	2: Packet type	—	NetWare-2
	3: NetWare mode	—	NetWare-3
	4: Setup PSERVER mode	1: FSERVER name 1	NetWare-3
		2: FSERVER name 2	NetWare-4
		3: FSERVER name 3	NetWare-4
		4: FSERVER name 4	NetWare-4
		5: FSERVER name 5	NetWare-4
		6: FSERVER name 6	NetWare-4
		7: FSERVER name 7	NetWare-4
		8: FSERVER name 8	NetWare-4
		9: Machine name	NetWare-5
		10: Password	NetWare-6
		11: Job polling interval	NetWare-7
		12: Bindery mode	NetWare-8
		13: NDS tree	NetWare-9
		14: NDS context	NetWare-10
		99: Back to prior menu	—
3:Setup Netware	5: Setup RPRINTER mode	1: PSERVER name 1	NetWare-11
		2: PSERVER name 2	NetWare-11
		3: PSERVER name 3	NetWare-11
		4: PSERVER name 4	NetWare-11
		5: PSERVER name 5	NetWare-11
		6: PSERVER name 6	NetWare-11
		7: PSERVER name 7	NetWare-11
		8: PSERVER name 8	NetWare-11
		9: Job timeout	NetWare-12
		99:Back to prior menu	—
	99: Back to prior menu	—	—
4: Setup EtherTalk	1: EtherTalk protocol	—	EtherTalk-1
	2: Zone name	—	EtherTalk-2
	99: Back to prior menu	—	—
5: Setup NetBEUI	1: NetBEUI protocol	—	NetBEUI-1
	2: Computer name	—	NetBEUI-2
	3: Workgroup name	—	NetBEUI-3
	4: Comment	—	NetBEUI-4
	99: Back to prior menu	—	—

Level1	Level2	Level3	Ref No.
6: Setup printer port	1: NetWare port name	—	Port-1
	2: EtherTalk port name	—	Port-2
	3: BOJ string	—	Port-3
	4: EOJ string	—	Port-4
	5: BOJ string(KANJI)	—	Port-5
	6: EOJ string(KANJI)	—	Port-6
	7: Printer type	—	Port-7
	8: TAB size (char.)	—	Port-8
	9: Page width (char.)	—	Port-9
	10: Page length(line)	—	Port-10
	11: lpr/ftp banner	—	Port-11
	99: Back to prior menu	—	—
7: Display status	1: prn1	—	STATUS-1
	2: system	—	STATUS-2
8: Setup printer trap	1: Prn-Trap community	—	Trap-1
	2: Setup TCP#1 trap 3: Setup TCP#2 trap 4: Setup TCP#3 trap 5: Setup TCP#4 trap	1: TCP#1—5 Trap enable	Trap-2
		2: On-line trap	Trap-3
		3: Off-line trap	Trap-4
		4: Paper Out trap	Trap-5
		5: Paper Jam trap	Trap-6
		6: Cover Open trap	Trap-7
		7: Printer Error trap	Trap-8
		8: TCP#1—5 Trap address	Trap-9
		99: Back to prior menu	—
	7: Setup IPX trap	1: IPX Trap enable	Trap-10
		2: On-line trap	Trap-11
		3: Off-line trap	Trap-12
		4: Paper Out trap	Trap-13
		5: Paper Jam trap	Trap-14
		6: Cover Open trap	Trap-15
		7: Printer Error trap	Trap-16
		8: IPX Trap address	Trap-17
		9: IPX Trap net	Trap-18
		99: Back to prior menu	—
	99: Back to prior menu	—	—

Level1	Level2	Level3	Ref No.
9: Setup SMTP (E-Mail)	1: SMTP Transmit	—	SMTP-1
	2: SMTP Receive	—	SMTP-2
	3: SMTP server name	—	SMTP-3
	4: SMTP port number	—	SMTP-4
	5: E-Mail address	—	SMTP-5
	6: Reply-to address	—	SMTP-6
	7: Event to address 1 8: Event to address 2 9: Event to address 3 10: Event to address 4 11: Event to address 5	1: To Address 1—5	SMTP-7
		2: Re-send Interval	SMTP-8
		3: Off-Line	SMTP-9
		4: Consumable Message	SMTP-10
		5: Toner Low/Out	SMTP-11
		6: Paper Low/Out	SMTP-12
		7: Paper Jam	SMTP-13
		8: Cover Open	SMTP-14
		9: Stacker Error	SMTP-15
		10: Mass Storage Error	SMTP-16
		11: Recoverable Error	SMTP-17
		12: Service Call Req.	SMTP-18
		13: Finisher	SMTP-19
		99: Back to prior menu	—
9: Setup SMTP (E-Mail)	12: Signature line 1 13: Signature line 2 14: Signature line 3 15: Signature line 4	—	SMTP-20
	99: Back to prior menu	—	—
10: Setup POP (E-Mail)	1: POP3 protocol	—	POP-1
	2: POP3 server	—	POP-2
	3: POP port number	—	POP-3
	4: POP3 server UserID	—	POP-4
	5: POP3 server Password	—	POP-5
	6: Use APOP	—	POP-6
	7: Retrieve every (min.)	—	POP-7
	99: Back to prior menu	—	—
97: Reset to factory set	—	—	ETC-1
98: Quit setup	—	—	—
99: Exit setup	—	—	—

8. When configuration is complete, select [Exit Setup] to save your change. To exit without saving your modification, select [Quit].

9. Turn the printer off and on again.

The network card continues to use pre-transmission settings until the printer is turned off and back on again.

Using SNMP

The printer and network card can be managed via a standard SNMP management station. The network card supports SNMPv1, MIB-II and OKI Data Private MIB.

The printer's trap address can be set in five places using TCP/IP and in one place with IPX.

The printer's trap address can be set in five places using TCP/IP and in one place with IPX.

Printer trap settings can be made with TELNET and a Web browser.

Configurable items and Default Values

Bold is the default setting.

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
TCPIP-1	[OKI Device Setup]-[TCP/IP]-[Use TCP/IP Protocol]	[Network Configuration]-[General Settings]-[Protocol Options]-[TCP/IP]	[Setup TCP/IP]-[TCP/IP protocol]	**ENABLE**/ DISABLE	Set TCP/IP protocol, enabled/ disabled
TCPIP-2	[OKI Device Setup]-[TCP/IP]-[IP Address]	[Network Configuration]-[TCP/IP]-[Fixed IP Address Settings]-[IP Address]	[Setup TCP/IP]-[IP address]	0.0.0.0—255.255.255.255 (**0.0.0.0**)	Set IP address
TCPIP-3	[OKI Device Setup]-[TCP/IP]-[Subnet Mask]	[Network Configuration]-[TCP/IP]-[Fixed IP Address Settings]-[Subnet Mask]	[Setup TCP/IP]-[Subnet mask]	0.0.0.0—255.255.255.255 (**0.0.0.0**)	Set subnet mask
TCPIP-4	[OKI Device Setup]-[TCP/IP]-[Default Gateway]	[Network Configuration]-[TCP/IP]-[Fixed IP Address Settings]-[Default Gateway]	[Setup TCP/IP]-[Gateway address]	0.0.0.0—255.255.255.255 (**0.0.0.0**)	Set gateway (default route).

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
TCPIP-5	[OKI Device Setup]-[TCP/IP]-[Use RARP]	[Network Configuration]-[TCP/IP]-[Method for assigning IP Address]-[RARP]	[Setup TCP/IP]-[RARP protocol]	ENABLE/ **DISABLE**	SET RARP function, enabled/ disabled
TCPIP-6	[OKI Device Setup]-[TCP/IP]-[Use DHCP/ BOOTP]	[Network Configuration]-[TCP/IP]-[Method for assigning IP Address]-[DHCP/ BOOTP]	[Setup TCP/IP]-[DHCP/ BOOTP protocol]	**ENABLE**/ DISABLE	Set DHCP function, enabled/ disabled
TCPIP-7	[OKI Device Setup]-[TCP/IP]-[DNS Server...] -[Primary Server]	[Network Configuration]-[TCP/IP]-[Fixed IP Address Settings]-[DNS Server Address (Pri.)]	[Setup TCP/IP]-[DNS server(Pri.)]	0.0.0.0—255.255.255.255 (**0.0.0.0**)	Set IP address for primary DNS server
TCPIP-8	[OKI Device Setup] -[TCP/IP]-[DNS Server...] -[Secondary Server]	[Network Configuration]-[TCP/IP]-[Fixed IP Address Settings]-[DNS Server Address (Sec.)]	[Setup TCP/IP]-[DNS server(Sec.)]	0.0.0.0—255.255.255.255 (**0.0.0.0**)	Set IP address for secondary DNS server
TCPIP-9	[OKI Device Setup]-[General]-[Change root password]		[Setup TCP/IP]-[root password]	Any alphanumeric characters up to seven characters. (Default is **null**)	Set the root password of OkiLAN
SNMP-1	[OKI Device Setup]-[SNMP]-[Authentic Community]	[Network Configuration]-[SNMP Traps]-[MIB-II Information]-[Authentic Community]	[Setup SNMP]-[Authentic community]	Any alphanumeric characters up to 15 characters. (Default is [**public**])	This community name is used to check whether incoming SNMP requests have the correct community name or not. The community name is displayed as ****** for security reasons

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
SNMP-2	[OKI Device Setup]-[SNMP]-[TRAP Community]	[Network Configuration]-[SNMP Traps]-[MIB-II Information]-[Trap Community]	[Setup SNMP]-[Trap community]	Any alphanumeric characters up to 15 characters. (Default is [**public**])	This community name is assigned to outgoing system traps such as cold start, authenti-cation failure, etc.
SNMP-3	[OKI Device Setup]-[SNMP]-[TRAP Address]	[Network Configuration]-[SNMP Traps]-[MIB-II Information]-[Trap IP Address]	[Setup SNMP]-[Trap address]	0.0.0.0—255.255.255.255 (**0.0.0.0**)	Set a destination IP address of Trap packet. If 0.0.0.0 is set, Trap is disabled
SNMP-4	[OKI Device Setup]-[SNMP]-[SysContact]	[Network Configuration]-[General Settings]-[System Information]-[System Contact]	[Setup SNMP]-[SysContact]	Any alphanumeric characters up to 255 characters. (Default is **null**)	Set SysContact (printer manager) name
SNMP-5	[OKI Device Setup]-[SNMP]-[SysName]	[Network Configuration]-[General Settings]-[System Information]-[System Name]	[Setup SNMP]-[SysName]	Any alphanumeric characters up to 255 characters. (Default is **null**)	Set SysName (printer model name)
SNMP-6	[OKI Device Setup]-[SNMP]-[SysLocation]	[Network Configuration]-[General Settings]-[System Information]-[System Location]	[Setup SNMP]-[SysLocation]	Any alphanumeric characters up to 255 characters. (Default is **null**)	Set Sys-Location (the location where the printer is installed)
SNMP-7	[OKI Device Setup]-[SNMP]-[Default TTL]		[Setup SNMP]-[DefaultTTL]	**0**—255	Set TTL (Time To Live) value
SNMP-8	[OKI Device Setup]-[SNMP]-[Enable Authen Trap]	[Network Configuration]-[SNMP Traps]-[MIB-II Information]-[Enable AuthenTraps]	[Setup SNMP]-[EnableAuthenTrap]	1 (Enable)/ **2** (**Disable**)	Set Authentic Trap, enabled/ disabled

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
NetWare-1	[OKI Device Setup]-[NetWare]-[Use NetWare Protocol]	[Network Configuration]-[General Settings]-[Protocol Options]-[NetWare]	[Setup NetWare]-[NetWare protocol]	**ENABLE**/ DISABLE	Set NetWare protocol, enabled/ disabled
NetWare-2	[OKI Device Setup]-[NetWare]-[Frame Type]	[Network Configuration]-[General Settings]-[Frame Options]-[NetBEUI]	[Setup NetWare]-[Packet type]	ETHER-II/802.3/ 802.2/SNAP/ **AUTO**	Set primary NetWare packet type
NetWare-3	[OKI Device Setup]-[NetWare]-[Operation Mode]	[Network Configuration]-[NetWare]-[NetWare Selections]-[NetWare Mode]	[Setup NetWare]-[NetWare mode]	RPRINTER/ **PSERVER**	Set NetWare mode
NetWare-4	[OKI Device Setup]-[NetWare]-[Bindery Setup]-[Selected file server]	[Network Configuration]-[NetWare]-[File Server for PServer Mode]-[File Server Names]	[Setup NetWare]-[Setup PSERVER mode]–[FSERVER name 1—8]	Any alphanumeric characters up to 47 characters. (Default is **null**)	Set file servers to connect. Up to eight file servers can be set. If you have nine or more file servers, you should set file servers here
NetWare-5	[OKI Device Setup]-[NetWare]-[Print Server Name]	[Network Configuration]-[NetWare]-[PServer Mode]-[NetWare Print Server Name]	[Setup NetWare]-[Setup PSERVER mode]–[Machine name]	Any alphanumeric characters up to 31 characters. (Default is [**OL**] + **last six digits of MAC address**)	Set Print Server name
NetWare-6	[OKI Device Setup]-[NetWare]-[Bindery Setup]-[Password]	[Network Configuration]-[NetWare]-[PServer Mode]-[Password]	[Setup NetWare]-[Setup PSERVER mode]–[Password]	Any alphanumeric characters up to 31 characters. (Default is **null**)	Set password for Print Server
NetWare-7	[OKI Device Setup]-[NetWare]-[Bindery Setup]-[Job Polling Time]	[Network Configuration]-[NetWare]-[PServer Mode]-[Job Polling Rate]	[Setup NetWare]-[Setup PSERVER mode]– [Job polling interval]	2—255 (**4**)	Set print job polling interval in seconds

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
NetWare-8	[OKI Device Setup]-[NetWare]-[Bindery Setup]	[Network Configuration]-[NetWare]-[PServer Mode]-[Bindery Mode]	[Setup NetWare]-[Setup PSERVER mode]–[Bindery mode]	**ENABLE**/ DISABLE	Set bindery mode, enabled/ disabled. Set DISABLE if you use OkiLAN as PSERVER on NDS
NetWare-9	[OKI Device Setup]-[NetWare]-[NDS Setup]-[NDS Tree]	[Network Configuration]-[NetWare]-[NDS]-[Tree Name]	[Setup NetWare]-[Setup PSERVER mode] – [NDS tree]	Any alphanumeric characters up to 31 characters. (Default is **null**)	Set NDS Tree name
NetWare-10	[OKI Device Setup]-[NetWare]-[NDS Setup]-[NDS Context]	[Network Configuration]-[NetWare]-[NDS]-[Context]	[Setup NetWare]-[Setup PSERVER mode] – [NDS context]	Any alphanumeric characters up to 77 characters. (Default is **null**)	Set NDS context for Print Server
NetWare-11	[OKI Device Setup]-[NetWare]-[RPRINTER Setup]-[Selected print server]	[Network Configuration]-[NetWare]-[Remote Printer Mode]-[NetWare Print Server Names]	[Setup NetWare]-[SET RPRINTER mode] –[PSERVE name 1—8]	Any alphanumeric characters up to 47 characters. (Default is **null**)	Set print servers to connect. Up to eight print servers can be set. If you have nine or more print servers, you should set print servers here
NetWare-12	[OKI Device Setup]-[NetWare]-[RPRINTER Setup]-[Time Out]	[Network Configuration]-[NetWare]-[Remote Printer Mode]-[Job Timeout]	[Setup NetWare]-[SET RPRINTER mode]–[Job timeout]	4—255 (**10**)	Set duration from the last data's arrival to freeing the port in seconds
EtherTalk-1	[OKI Device Setup]-[EtherTalk]-[Use EtherTalk Protocol]	[Network Configuration]-[General Settings]-[Protocol Options]-[EtherTalk]	[Setup EtherTalk]-[EtherTalk protocol]	**ENABLE**/ DISABLE	Set EtherTalk, enabled or disabled
EtherTalk-2	[OKI Device Setup]-[EtherTalk]-[Zone Name]	[Network Configuration]-[EtherTalk]-[EtherTalk Zone Name]	[Setup EtherTalk]-[Zone name]	Any alphanumeric characters up to 32 characters. ([*])	Set Zone Name to which OkiLAN belongs.

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
NetBEUI-1	[OKI Device Setup]-[NetBEUI]-[Use NetBEUI Protocol]	[Network Configuration]-[General Settings]-[Protocol Options]-[NetBEUI]	[Setup NetBEUI]-[NetBEUI protocol]	**ENABLE**/ DISABLE	Set NetBEUI, enabled or disabled.
NetBEUI-2	[OKI Device Setup]-[NetBEUI]-[Computer Name]	[Network Configuration]-[NetBEUI]-[NetBEUI]-[Computer Name]	[Setup NetBEUI]-[Computer name]	Any alphanumeric characters up to 15 characters. (Default is [**OL**] + **last six digits of MAC address**)	Set a computer name for OkiLAN.
NetBEUI-3	[OKI Device Setup]-[NetBEUI]-[Workgroup]	[Network Configuration]-[NetBEUI]-[NetBEUI]-[Workgroup Name]	[Setup NetBEUI]-[Workgroup name]	Any alphanumeric characters up to 15 characters. (Default is [**PrintServer**])	Set a work-group name to which OkiLAN belongs.
NetBEUI-4	[OKI Device Setup]-[NetBEUI]-[Comment]	[Network Configuration]-[NetBEUI]-[NetBEUI]-[Comment]	[Setup NetBEUI]-[Comment]	Any alphanumeric characters up to 48 characters. (Default is [**EthernetBoard OkiLAN**])	Set the comments for OkiLAN.
Port-1	[OKI Device Setup]-[NetWare]-[Printer Name]	[Network Configuration]-[NetWare]-[NetWare Selections]-[NetWare Printer Name]	[Setup printer port]-[NetWare port name]	Any alphanumeric characters up to 31 characters. (Default is [**OL**] + **last six digits of MAC address + -prn1**])	Set NetWare printer object name
Port-2	[OKI Device Setup]-[EtherTalk]-[Printer Name]	[Network Configuration]-[EtherTalk]-[EtherTalk Printer Name]	[Setup printer port]-[EtherTalk port name]	Any alphanumeric characters up to 32 characters. (Default is the **printer name on which OkiLAN is installed**)	Set EtherTalk printer object name

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
Port-3			[Setup printer port]-[BOJ string]	Any alphanumeric and following control characters up to 31 characters. (Default is **null**). \b Backspace (0x08) \t Tab (0x09) \n Linefeed (0x0a) \v Vertical tab (0x0b) \f Page feed (0x0c) \r Carriage return (0x0d) \xnn Hex code [nn] (0xnn) \] Double quote (0x22) \\ Backslash (0x5c)	Set an appropriate command sequence to be sent to the connected printer before printing job
Port-4			[Setup printer port]-[EOJ string]	Any alphanumeric and following control characters up to 31 characters. (Default is **null**) \b Backspace (0x08) \t Tab (0x09) \n Linefeed (0x0a) \v Vertical tab (0x0b) \f Page feed (0x0c) \r Carriage return (0x0d) \xnn Hex code [nn] (0xnn) \] Double quote (0x22) \\ Backslash (0x5c)	Set an appropriate command sequence to be sent to the connected printer after printing job

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
Port-5			[Setup printer port]-[BOJ string(KANJI)]	Any alphanumeric and following control characters up to 31 characters. (Default is **null**) \b Backspace (0x08) \t Tab (0x09) \n Linefeed (0x0a) \v Vertical tab (0x0b) \f Page feed (0x0c) \r Carriage return (0x0d) \xnn Hex code [nn] (0xnn) \] Double quote (0x22) \\ Back slash (0x5c)	Set an appropriate command sequence to be sent to the connected printer before printing job when data is sent to sjis/euc logical printer/ directory
Port-6			[Setup printer port]-[EOJ string(KANJI)]	Any alphanumeric and following control characters up to 31 characters. (Default is **null**) \b Backspace (0x08) \t Tab (0x09) \n Linefeed (0x0a) \v Vertical tab (0x0b) \f Page feed (0x0c) \r Carriage return (0x0d) \xnn Hex code [nn] (0xnn) \] Double quote (0x22) \\ Back slash (0x5c)	Set an appropriate command sequence to be sent to the connected printer after printing job when data is sent to sjis/euc logical printer/ directory

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
Port-7			[Setup printer port]-[Printer type]	**PS**	Set a printer type when data is sent to sjis/euc logical printer/ directory
Port-8			[Setup printer port]-[TAB size (char.)]	0—16 (**8**)	Set tab size when data is sent to sjis/euc logical printer/ directory. The value 0 does not convert any tabs
Port-9			[Setup printer port]-[Page width (char.)]	0—255 (**78**)	Set page width when data is sent to sjis/euc logical printer/ directory. If the width of one line exceeds this value, Carriage Return and Line Feed are inserted automatically. The value 0 means no limitation of the line width

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
Port-10			[Setup printer port]-[Page length(line)]	0—255 (**66**)	Set page length when data is sent to sjis/euc logical printer/ directory. If the number of lines exceeds this value, Form Feed are inserted automatically. The value 0 means no limitation of the line width
Port-11	[OKI Device Setup]-[TCP/IP]-[Use FTP/LPD Banner]		[Setup printer port]-[lpr/ftp banner]	**NO**/YES	Set banner printing for LPR/FTP enabled/ disabled
STATUS-1	[Status]-[Printer Status]	[Printer Status]	[Display status]-[prn1]		Display logical port status
STATUS-2	[Setup]-[System Status]	[Network Configuration]-[Network Summary]	[Display status]-[system]		Display system status
Trap-1	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[Printer Trap Community Name]	[Network Configuration]-[SNMP Traps]-[Trap Destination]-[Printer Trap Community Name]	[Setup printer trap]-[Prn-Trap community]	Any alphanumeric characters up to 77 characters. (Default is [**public**])	This community name is assigned to outgoing printer status traps such as off-line, paper out, etc.

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
Trap-2	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[TCP#1—5]-[Detail . . .]-[Trap Enable]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Trap Enable]	[Setup printer trap]-[Setup TCP#1—5 trap] – [TCP#1—5 Trap enable]	ENABLE/ **DISABLE**	Set sending a trap packet enabled or disabled for each destination. Five IP address destinations can be set up and one IPX destination
Trap-3	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[TCP#1—5]-[Detail . . .]-[On-line]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[On-line]	[Setup printer trap]-[Setup TCP#1—5 trap] – [On-line trap]	ENABLE/ **DISABLE**	Set sending a trap, enabled or disabled, when the printer turns to ON-LINE
Trap-4	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[TCP#1—5]-[Detail . . .]-[Off-line]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Off-line]	[Setup printer trap]-[Setup TCP#1—5 trap] – [Off-line trap]	ENABLE/ **DISABLE**	Set sending a trap, enabled or disabled, when the printer turns to OFF-LINE
Trap-5	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[TCP#1—5]-[Detail . . .]-[Paper Out]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Paper Out]	[Setup printer trap]-[Setup TCP#1—5 trap] – [Paper Out trap]	ENABLE/ **DISABLE**	Set sending a trap, enabled or disabled, when paper is out
Trap-6	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[TCP#1—5]-[Detail . . .]-[Paper Jam]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Paper Jam]	[Setup printer trap]-[Setup TCP#1—5 trap] – [Paper Jam trap]	ENABLE/ **DISABLE**	Set sending a trap enabled or disabled when a paper jam occurs
Trap-7	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[TCP#1—5]-[Detail . . .]-[Cover Open]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Cover Open]	[Setup printer trap]-[Setup TCP#1—5 trap] – [Cover Open trap]	ENABLE/ **DISABLE**	Set sending a trap enabled or disabled when the printer cover opens

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
Trap-8	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[TCP#1—5]-[Detail . . .]-[Printer Error]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Printer Error]	[Setup printer trap]-[Setup TCP#1—5 trap] – [Printer Error trap]	ENABLE/ **DISABLE**	Set sending a trap enabled or disabled when any errors occur
Trap-9	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[TCP#1—5]	[Network Configuration]-[SNMP Traps]-[Trap Destination]-[Address 1]—[Address 5]	[Setup printer trap]-[Setup TCP#1—5 trap] – [TCP#1—5 Trap address]	0.0.0.0—255.255.255.255 (**0.0.0.0**)	Set IP address to which a trap packet will be sent. You can set up to five IP addresses
Trap-10	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[IPX]-[Detail . . .]-[Trap Enable]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Trap Enable]	[Setup printer trap]-[Setup IPX trap] – [IPX Trap enable]	ENABLE/ **DISABLE**	Set sending a trap packet enabled or disabled for each destination. You can set up to five IP address destinations and one IPX destination.
Trap-11	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[IPX]-[Detail . . .]-[On-line]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[On-line]	[Setup printer trap]-[Setup IPX trap] – [On-line trap]	ENABLE/ **DISABLE**	Set sending a trap enabled or disabled when the printer turns to ON-LINE
Trap-12	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[IPX]-[Detail . . .]-[Off-line]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Off-line]	[Setup printer trap]-[Setup IPX trap] – [Off-line trap]	ENABLE/ **DISABLE**	Set sending a trap enabled or disabled when the printer turns to OFF-LINE.
Trap-13	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[IPX]-[Detail . . .]-[Paper Out]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Paper Out]	[Setup printer trap]-[Setup IPX trap] – [Paper Out trap]	ENABLE/ **DISABLE**	Set sending a trap enabled or disabled when paper is out

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
Trap-14	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[IPX]-[Detail . . .]-[Paper Jam]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Paper Jam]	[Setup printer trap]-[Setup IPX trap] – [Paper Jam trap]	ENABLE/ **DISABLE**	Set sending a trap enabled or disabled when a paper jam occurs
Trap-15	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[IPX]-[Detail . . .]-[Cover Open]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Cover Open]	[Setup printer trap]-[Setup IPX trap] – [Cover Open trap]	ENABLE/ **DISABLE**	Set sending a trap enabled or disabled when the printer cover opens
Trap-16	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[IPX]-[Detail . . .]-[Printer Error]	[Network Configuration]-[SNMP Traps]-[Trap Assignments]-[Printer Error]	[Setup printer trap]-[Setup IPX trap] – [Printer Error trap]	ENABLE/ **DISABLE**	Set sending a trap enabled or disabled when any errors occur
Trap-17	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[IPX]	[Network Configuration]-[SNMP Traps]-[Trap Destination]-[IPX]	[Setup printer trap]-[Setup IPX trap] – [IPX Trap address]	Any address (**00000000000**)	Set node address to which a trap packet will be sent
Trap-18	[OKI Device Setup]-[SNMP]-[Printer Trap Setup . . .]-[IPX]	[Network Configuration]-[SNMP Traps]-[Trap Destination]-[IPX]	[Setup printer trap]-[Setup IPX trap] – [IPX Trap net]	Any address (**00000000**)	Set network address to which a trap packet will be sent
SMTP-1	[OKI Device Setup]-[SMTP]-[Use SMTP Transmit Protocol]	[Network Configuration]-[Email Settings]-[Email Transmit Settings]-[SMTP Transmit]	[Setup SMTP (E-Mail)]-[SMTP Transmit]	ENABLE/ **DISABLE**	Set sending E-mail via SMTP, enabled or disabled
SMTP-2	[OKI Device Setup]-[SMTP]-[Use SMTP Receive Protocol]	[Network Configuration]-[Email Settings]-[Email Receive Settings]-[SMTP Receive]	[Setup SMTP (E-Mail)]-[SMTP Receive]	ENABLE/ **DISABLE**	Set receiving E-mail via SMTP, enabled or disabled.

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
SMTP-3	[OKI Device Setup]-[SMTP]-[SMTP Server Address/ Name]	[Network Configuration]-[Email Settings]-[Email Transmit Settings]-[SMTP Server]	[Setup SMTP (E-Mail)]-[SMTP server name]	0.0.0.0—255.255.255.255 or host name up to 64 characters. (Default is **null**)	Set IP address or host name of SMTP server
SMTP-4	[OKI Device Setup]-[SMTP]-[Advanced . . .]-[SMTP Port Number]	[Network Configuration]-[Email Settings]-[Email Transmit Settings]-[SMTP Port Number]	[Setup SMTP (E-Mail)]-[SMTP port number]	1—65535 (**25**)	Set port number of SMTP
SMTP-5	[OKI Device Setup]-[SMTP]-[E-Mail Address]	[Network Configuration]-[Email Settings]-[Email Transmit Settings]-[Printer Email Address]	[Setup SMTP (E-Mail)]-[E-Mail address]	Any alphanumeric characters up to 78 characters. (Default is **null**)	Set the E-mail address that is used for [From] field in the mail header
SMTP-6	[OKI Device Setup]-[SMTP]-[Reply-To Address]	[Network Configuration]-[Email Settings]-[Email Transmit Settings]-[Reply-To-Address]	[Setup SMTP (E-Mail)]-[Reply-To address]	Any alphanumeric characters up to 78 characters. (Default is **null**)	Set the E-mail address that is used for [Reply-To] field in the mail header
SMTP-7	[OKI Device Setup]-[SMTP]-[1—5]-[To Address 1—5]	[Network Configuration]-[Email Settings]-[Email Recipients]-[Email Address 1]—[Email Address 5]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [To Address 1—5]	Any alphanumeric characters up to 78 characters. (Default is **null**)	Set E-mail addresses to that E-mail should be sent. Up to five E-mail addresses can be set
SMTP-8	[OKI Device Setup]-[SMTP]-[1—5]-[Check Interval]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Re-send Interval]	[Setup SMTP(E-Mail)]-[Event to address 1—5] – [Re-send Interval]	**DISABLE**/ 30min/60min/ 24hour	Set interval that the OkiLAN checks specified event(s). An E-mail is sent when specified event(s) occur when **DISABLE** is selected

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
SMTP-9	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Off Line]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Off Line]	ENABLE/ **DISABLE**	An E-mail is sent when the printer is Off- line if this is enabled
SMTP-10	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Consumable Message]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Consumable Message]	ENABLE/ **DISABLE**	An E-mail is sent when maintenance is required if this is enabled
SMTP-11	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Toner Low Toner Out]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Toner Low/Out]	ENABLE/ **DISABLE**	An E-mail is sent when toner(s) low/out occurs if this is enabled
SMTP-12	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Paper Low Paper Out]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Paper Low/Out]	ENABLE/ **DISABLE**	An E-mail is sent when paper low/ out occurs if this is enabled
SMTP-13	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Paper Jam]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Paper Jam]	ENABLE/ **DISABLE**	An E-mail is sent when a paper jam occurs if this is enabled
SMTP-14	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Cover Open]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Cover Open]	ENABLE/ **DISABLE**	An E-mail is sent when the cover is opened if this is enabled
SMTP-15	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Stacker Error]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Stacker Error]	ENABLE/ **DISABLE**	An E-mail is sent when any stacker error occurs if this is enabled

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
SMTP-16	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Mass Storage Error]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Mass Storage Error]	ENABLE/ **DISABLE**	An E-mail is sent when any mass storage error occurs if this is enabled
SMTP-17	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Recoverable Error]	[Setup SMTP(E-Mail)]-[Event to address 1—5] – [Recoverable Error]	ENABLE/ **DISABLE**	An E-mail is sent when any recoverable error occurs if this is enabled
SMTP-18	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Service Call Required]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Service Call Req.]	ENABLE/ **DISABLE**	An E-mail is sent when any service call request occurs if this is enabled
SMTP-19	[OKI Device Setup]-[SMTP]-[1—5]-[Selected condition]	[Network Configuration]-[Email Settings]-[Email Alert Assignments]-[Finisher Error]	[Setup SMTP (E-Mail)]-[Event to address 1—5] – [Finisher]	ENABLE/ **DISABLE**	An E-mail is sent when any finisher error occurs if this is enabled
SMTP-20	[OKI Device Setup]-[SMTP]-[Advanced . . .]-[Signature]	[Network Configuration]-[Email Settings]-[Email Signature]-[Signature line 1]—[Signature line 4]	[Setup SMTP (E-Mail)]-[Signature line 1—4]	Any alphanumeric characters up to 63 characters. (Default is **null**)	Set up to four signature lines. Signature is added to the bottom of an E-mail
ETC-1	[Setup]-[Reset]	[Network Configuration]-[General Settings]-[Restore Factory Defaults]	Reset to factory set		Reset OkiLAN settings to factory default
ETC-2		[Network Configuration]-[General Settings]-[System Information]-[Printer Serial Number]			Read only item. Printer serial number is displayed

Ref. No.	Admin Manager	Web browser	TELNET/ Diagnostic test print	Available options	Notes
ETC-3		[Network Configuration]-[General Settings]-[System Information]-[Printer Asset Number]		Any alphanumeric characters up to 8 characters. (Default is **null**)	Set a printer asset number

Configurable items vary between printers.

Management Utility

PrintSuperVision

PrintSuperVision is a web-based application for managing printing devices connected to a network. It consists of two parts:

A web application based on Microsoft web server (Internet Information Server, IIS or Personal WEB Server, PWS), that provides the user interface.

A monitoring program (PrintSuperVisor) that runs all the time, collecting data and saving it in a database for statistical reports and sending E-mail alerts based on the saved configuration.

PrintSuperVision's main functions are:

> Maintaining the list of printing devices and organising them in logical groups.

> Initially discovering and configuring printers connected to the network.

> Locating printers visually on maps.

> Monitoring devices over time and saving data for statistical reports.

> Sending email alerts when events occur that affect the functionality of printers.

> Creating statistical reports about usage of printers.

> Tracking maintenance data related to printers.

> Integrating with Oki Data's on-line web support.

System requirement

Windows

The main PrintSuperVision application can be installed in any of the following Windows systems.

Operating System	Service Pack	Option Pack	IIS/PWS
Windows NT 4.0 Workstation	6.0	4.0	PWS (Personal Web Server) available in NT 4.0 Option Pack
Windows NT 4.0 Server	5.0	4.0	IIS (Internet Information Server) 1.0
Windows XP Home/ Professional	—	—	IIS installed as an option. Available in the Windows XP CD
Windows 2000 Professional	1.0	—	Internet Service Manager included in the OS
Windows 2000 Server/Advanced Server	1.0	—	Internet Service Manager included in the OS
Windows 98	—	—	PWD (Included in Windows 98 by default) PWS available in NT 4.0 Option Pack in Microsoft Web site
Windows 98 SE	—	—	PWD (Included in Windows 98 by default. PWS available in NT 4.0 Option Pack in Microsoft Web site

While the PrintSuperVision application may work in Windows 95 with PWS installed, PrintSuperVision may not install or work properly in some versions of Windows 95. However, as a client, Windows 95 is fully supported.

Microsoft does not officially support Windows Me-PWS in Windows Me. PrintSuperVision does not support this OS. Also, Microsoft no longer supports Peer Web Service. PrintSuperVision will not work with Peer Web Service.

Supported Browsers

The browsers supported are:

Internet Explorer (IE) 4.01 and above.

Netscape Navigator 4.0 and above.

Opera 5.12 and above.

The PrintSuperVision application can be accessed from any Windows, Macintosh, Unix, or Linux desktop that supports any of the above-mentioned browsers.

While all the above browsers are supported, PrintSuperVision works best when used with Internet Explorer. When using the Netscape browser, do not select the option [Images off]. The hyperlinks may not work properly. Some versions of Netscape browser do not display the frames properly, and the [Back] button may not work correctly.

Supported Printers

PrintSuperVision provides general management information for OKI and non-OKI printers connected to the network. For OKI printers using OkiLAN print servers, additional details, reports and added features are available.

While the printer properties are displayed in PrintSuperVision, only a few of the printer settings can be set. For setting any other printer settings, a hyperlink to the printer's web page is provided in PrintSuperVision.

Installation

To install the Print SuperVision utility

Note: You must be connected to the internet to download this utility.

WindowsXP/2000/NT4.0 requires administrator privileges.

1. Insert the CD-ROM provided with your printer into the CD-ROM drive.

   If the Menu Installer doesn't start automatically, click Start→Run→Browse. Browse to your CD-ROM. Click Setup→Open→OK.

2. Select [Internet Downloads].

3. Select [PrintSuperVision].

4. Follow the on-screen instructions. In the [Edit Data] screen, you can specify a port number for PrintSuperVision (default 80).

5. When installation ends, the [Setup complete] screen is displayed. Click [Finish].

6. Now you should select [Start]-[Programs]-[PrintSuperVision]-[PrintSuperVision] or double-click the [PrintSuperVision] icon on the desktop for the PrintSuperVision server.

7. For PrintSuperVision client, access [http://[the server IP address or host name]/PrintSuperVision] from the Web browser. If you change the port number you should add [:[port number]] such as [http://172.168.20.127/PrintSuperVision:8080].

8. PrintSuperVision has an on-line help facility.

Uninstallation

To uninstall PrintSuperVision, either

> select [Start] →[Programs]→[PrintSuperVision]→[Uninstall PrintSuperVision],

or

> from [Control Panel], select [Add/Remove Programs], select [PrintSuperVision] from the index window and click [Add/Remove]. When the uninstallation is completed, close [Add/Remove Programs].

In some cases, an empty [*Okidat/*PrintSuperVision*/*] directory may be left behind. Delete the directory manually.

Printing Utility

OKI LPR

The OKI LPR Utility is a utility that allows printing data to printers connected to the network via TCP/IP. This utility is for use with Windows XP, Windows 2000, Windows Me, Windows 98, Windows 95 and Window NT4.0.

The utility is for those OKI printers which support TCP/IP; it redirects printing data to the lpr port of the specified IP address.

System Requirement

Windows XP/2000/Me/98/95/NT4.0 with TCP/IP support.

To install the OKI LPR utility

The OKI LPR utility requires that the TCP/IP protocol should be installed in your Windows system. To install the TCP/IP protocol into your Windows system consult your Windows manual.

Windows XP/2000/NT4.0 requires administrator privileges.

1. Set up the printer driver by designating the output destination to [Local Printer (LPT1:)]. For information on setting up your printer driver, see the printer user manual.

2. Insert the CD-ROM provided with your printer into the CD-ROM drive.

   If the Menu Installer doesn't start automatically, click Start→Run→Browse. Browse to your CD-ROM. Click Setup→Open→OK.

3. Select [Optional Utilities].

4. Select [Install Direct Network Printing Utility (LPR)]

5. Click [Next] when the [Welcome] screen is displayed.

6. Verify [Destination Folder] and [Spool Folder] and click [Next].

7. Check [Register in Startup] if you want automatic startup as Windows boots up. Check [Launch as minimized] if you want to startup in the Icon state and click [Next].

8. Verify the program folder name and click [Next]. The installation starts.

9. When the installation ends, the [Setup complete] screen is displayed. Check [Yes, I want to launch OKI LPR Utility now] and click [Finish]. Check [Yes, I want to view the ReadMe File] if you want to read [Readme]. The OKI LPR utility starts.

10. Select [Add Printer] on the [Remote Print] menu.

11. Select [Printer] to accept the printer that has been added in the step 1.

12. Enter an IP address at [IP Address] and click [OK]. A printer is added to the main window.

Refer to the On-line Help for information on how to use the utility.

Uninstallation

1. Stop the OKI LPR Utility. Right-click the OKI LPR icon in the system tray and click [Exit].

2. Select [Start] →[Program] →[Okidata] →[OKI LPR Utility] → [Uninstall OKI LPR Utility] ([Start] →[All Programs] → [Okidata] →[OKI LPR Utility] →[Uninstall OKI LPR Utility] on WindowsXP).

3. Click [Yes] when the [Confirm File Deletion] dialogue is displayed. Deletion of the OKI LPR utility starts.

4. When the deletion has finished, the [Uninstall Complete] screen is displayed. Click [OK].

If a file that has been added after installation exists in the folder to install the OKI LPR utility or the folder to spool, you cannot delete the folder. Delete any unwanted files before running [Uninstall OKI LPR Utility].

Microsoft Windows

Overview

This chapter provides guidelines on how to print over the network from various Microsoft Windows platforms. There are numerous ways of printing from Windows and the exact set-up will vary depending upon your environment. There are also numerous versions of Windows, which can be configured as either a client, server or both.

Although there are many variants of Windows, the principles of network printing are the same. Microsoft provides on-line help with all of their operating systems and this is a good reference point for the exact details of each configuration option within Windows.

The network printer supports the following protocols that can be used in conjunction with the Windows operating system:

> TCP/IP

> IPX (Novell NetWare)

> NetBEUI

Installation of TCP/IP Protocol

There are a number of options available when printing using TCP/IP for Windows. The following table lists the options:

Windows Version	Method
Win 95/98/Me	OKI LPR Utility
NT 4.0	OKI LPR Utility Microsoft LPR[1]
Windows 2000/ Windows XP	OKI LPR Utility Microsoft LPR[1] Port 9100[1] IPP[1]

[1]These functions are built into Windows and are displayed as options when using the Add Printer Wizard.

Although there are some differences in configuration options between the various Windows platforms, the procedure for printing using TCP/IP is the same.

1. Ensure that the TCP/IP protocol has been installed in Windows. This can be confirmed by checking the network settings from within the Control Panel. If TCP/IP has not been installed refer to the section below Installation of TCP/IP protocol.

2. If not already configured, a suitable IP address, Subnet Mask and Gateway address should be configured. Please refer to the on-line help if necessary. It is vital that the IP address entered is unique and valid. Entering an incorrect IP address may cause severe network problems. Please check the address with the network administrator.

3. If your network environment uses domain names, DNS should be enabled and configured on your system. However, this step is not essential to enable network printing.

4. Restart the operating system.

Windows 95/98/Me

1. Click the [Start] button, select [Settings] and then click [Control Panel].

2. In the [Control Panel] double-click on the [Network] icon.

3. In the [Network] dialogue box click [Configuration Panel].

4. If the [Client for Microsoft Networks] is not listed, click [Add].

5. In the [Select Network Component Type] dialogue box, select [Protocol] then click [Add].

6. In the [Select Network Protocol] dialogue box, select [Microsoft] from the list of manufacturers, then select [TCP/IP] from the list of network protocols, then click [OK].

7. The Windows installation CD-ROM may be required. Follow the remaining dialogue box prompts.

Windows NT 4.0

1. Click [Start], select [Settings] and then click [Control Panel].

2. Double-click the [Network] icon.

3. In the Network dialogue box, click the [Protocols] tab.

4. If the [TCP/IP Protocol] is not listed, click [Add].

5. In the [Select Network Protocol] dialogue box, select [TCP/IP Protocol] and click [OK].

6. The Windows NT installation CD-ROM may be required. Follow the remaining dialogue box prompts.

Windows 2000

1. Click the [Start] button, select [Settings] and then click [Network and Dial-up Connections].

2. Double-click the [Local Area Connection] icon. In the [Local Area Connection Status] dialogue box, click [Properties].

3. In the [Local Area Connection Properties] dialogue box, click [Install].

4. In the [Select Network Component Type] dialogue box, select [Protocol] and click [Add].

5. In the [Select Network Protocol] dialogue box, select [TCP/IP Protocol] and click [OK].

6. Click [Close] button in the [Local Area Connection Properties] dialogue box.

7. Click [Close] in the [Local Area Connection Status] dialogue box.

Windows XP

1. Click the [Start] button and select [Control Panel].

2. Select [Network and Internet Connection] and [Network Connection].

3. Double-click [Local Area Connection] and click [Properties] in the [Location Area Connection Status] dialogue box.

4. If the [Internet Protocol (TCP/IP)] is not listed, click [Install.].

5. In the [Select Network Component Type] dialogue box, select [Protocol] then click [Add].

6. In the [Select Network Protocol] dialogue box, select [Internet Protocol (TCP/IP)] then click [OK].

7. The Windows XP installation CD-ROM may be required. Follow the remaining dialogue box prompts.

Once the protocol has been installed and configured in Windows, the next step is to configure the TCP/IP parameters in the network printer.

Network printer IP address configuration

Use the Admin/Manager Standard Set-up Utility to configure the IP Address, Subnet Mask and Gateway.

1. Connect the printer to the network and turn on.

2. Place the Network Software Utilities disk (or the software CD provided with your printer) in the CD-ROM drive. The set-up utility starts automatically. If the set-up utility does not start, double-click on *setup.exe* in the Windows folder of the CD-ROM.

3. Select [Install Network Setup Utility].

4. Select the appropriate language.

5. Click [Next] on the Welcome screen.

6. If you agree to the User License Agreement, click [Next].

7. Select the appropriate print server, using the Ethernet address to identify it, and click [Next].

   The Ethernet address (MAC Address) of the printer can be found on the self-diagnostic printout, which can be printed by pressing the push-button on the network card for two seconds and then releasing it.

   Do you use the TCP/IP protocol?

   When using *lpr* in UNIX and other TCP/IP environments, please select [Yes]. To use in a TCP/IP environment, an IP address should be assigned to the Ethernet board.

   If [Yes] has been selected and TCP/IP is the only working protocol and the IP address has not already been assigned, you can either obtain an IP address automatically or assign an IP address.

When [Obtain an IP address automatically] is selected, the device IP address will be automatically assigned by the DHCP server. In an environment without a DHCP server, please assign the IP address manually.

If you are assigning an IP address, you need to enter:

> An IP address

> Subnet mask

> Gateway address.

8. Click [Next].

   Do you use the NetWare protocol?

   Consult your network manager to ensure that the NetWare file server is properly installed and working on the network. Make sure that NetWare Client32 or IntranetWare Client is installed on your computer.

9. On selecting [Yes] you will be asked if [You set-up the queue from the Wizard]?

   Do you use the EtherTalk protocol?

   EtherTalk is the required protocol for printing data from the Macintosh environment.

   Do you use the NetBEUI protocol?

   Using NetBEUI makes it easy to manage your OKI product and print within the network environment of Windows.

10. Confirm your configuration. If everything is correct, select [Execute] to apply the configuration. Set-up has now been completed. Select [Finish].

Now that both Windows and the printer have been configured to use TCP/IP, the next step is to configure Windows to print to the network printer.

Windows 95/98/Me

When printing using TCP/IP, the *Oki LPR* utility is the only option to use. The following procedure should be used.

When installing the driver, ensure it is installed as a local printer and not a network printer. Ensure the appropriate printer driver has been installed in Windows.

Install the *Oki LPR* utility as described on page 73 of this manual and add the printer installed earlier.

Windows NT 4.0

With Windows NT 4.0, you have two options for printing using TCP/IP. They are:

> Oki LPR

> Microsoft LPR

In order to use Microsoft LPR, it must first be installed into your operating system.

NT 4.0 requires administrator privileges.

Oki LPR

Please follow the procedure described in the Windows 95/98/Me section on page 83.

Microsoft LPR

To install this port, the following needs to be carried out.

1. Select [Start], [Settings], [Control Panel] and then select [Printers].

2. Select [Add Printer] Wizard.

3. Select [My Computer] and then [Next].

4. Select [Add Port].

5. Select [LPR Port] and then [OK].

6. In [Name or address of server providing lpd] type the host name or IP address of the host for the printer you are adding.

7. In [Name of printer or print queue on that server] type the logical printer name "lp" and then click [OK].

8. Follow the instructions on the screen to finish installing the LPR-compatible printer.

If the LPR port is not available, install the Microsoft TCP/IP Printing Service.

Insert the printer driver for Windows NT4.0.

1. Select [Start]→[Settings]→[Control Panel] and then double-click the [Network] icon.

2. In the Network dialogue box, click the [Services] tab.

3. If [Microsoft TCP/IP Printing] is not listed, click [Add].

4. In the [Select Network Service] dialogue box, select [Microsoft TCP/IP Printing] and click [OK].

5. The Windows NT installation CD-ROM may be required. Follow the remaining dialogue box prompts.

Windows 2000

Windows 2000 requires administrator privileges.

With Windows 2000, there are four options for printing using TCP/IP.

> Oki LPR

> Microsoft LPR

> Port 9100

> IPP

In order to use Microsoft LPR, it must first be installed on your system.

OKI LPR

Please follow the procedure described in the Windows 95/98/Me section on page 83.

Microsoft LPR

To install this port, the following needs to be carried out:

1. Select [Start], [Settings], [Control Panel and Printers].
2. Open the [Printers] folder.
3. Double-click [Add Printer] and then select [Next].
4. Select [Local Printer], clear the [Automatically detect my printer] check box, and then select [Next].
5. Select [Create a new port] and then [LPR Port].
6. Select [Next] and then provide the following information:

In [Name or address of server providing LPD] enter the host name or Internet Protocol (IP) address of the host for the printer you are adding.

In [Name of printer or print queue on that server] type lp.

Follow the instructions on the screen to finish installing the TCP/IP printer.

Port 9100

1. Select [Start] →[Settings] →[Control Panel].
2. Open the [Printers] folder.
3. Double-click [Add Printer] and then select [Next].
4. Select [Local Printer], clear the [Automatically detect my printer] check box and then click [Next].
5. Select [Create a New Port] and select [Standard TCP/IP Port].
6. Select [Next].
7. The [Welcome to the Add Standard TCP/IP Printer Port Wizard] will appear.
8. Select [Next] and provide the following information. Enter [Printer name] or IP address, for example: *172.168.1.31*. If the above IP address is entered, the Port Name will default to *IP_172.168.1.31*.
9. Select [Next]. Additional port information will be required.
10. Under [Device Type], select [Custom] then [Settings].
11. Ensure [Protocol] is set to [Raw].
12. Ensure [Port Number] is 9100 and [SNMP Status Enabled] is deselected.

13. Select [OK].

14. Select [Follow the instructions on the screen to finish installing the printer.]

IPP

1. Select [Start]→[Settings]→[Control Panel and Printers].

2. Open the [Printers Folder].

3. Double-click [Add Printer] and then select [Next].

4. Select [Network Printer].

5. Select [Next].

6. Type printer URL in text box labelled [Connect to a printer in the Internet or your Intranet], e.g. *http://172.168.1.31/ipp/lp*.

7. Select [Next].

8. Install printer driver.

Windows XP

Windows XP requires administrator privileges.

With Windows XP, there are four options for printing using TCP/IP.

> Oki LPR

> Microsoft LPR

> Port 9100

> IPP

In order to use Microsoft LPR, it must first be installed on your system.

OKI LPR

Please follow the procedure described in the Windows 95/98/Me section on page 83.

Microsoft LPR

To install this port, the following needs to be carried out:

1. Select [Start]→[Settings]→[Control Panel]→[Printers and Other Hardware].

2. Select [Printers and Faxes].

3. Click [Add Printer], then select [Next].

4. Select [Local printer attached to this computer], clear the [Automatically detect and install my Plug and Play printer] check box, and then click [Next].

5. Select [Create a New Port] and [Type Standard TCP/IP Port].

6. Click [Next].

7. [Welcome to the Add Standard TCP/IP Printer Port Wizard] appears.

8. Click [Next] and provide the following information. Enter [Printer name or IP address], for example: *172.168.1.31.* If the above IP address is entered, the Port Name will default to *IP_172.168.1.31*.

9. Click [Next]. [Additional Port Information Required] displayed.

10. Under [Device Type], select [Custom] then [Settings].

11. Ensure [Protocol] is set to [LPR].

12. Ensure [Queue Name] is lp and [SNMP Status Enabled] is deselected.

13. Click [OK].

14. Follow on screen instructions to finish installing the printer.

Port 9100

1. Select [Start]→[Settings]→[Control Panel]→[Printers and Other Hardware].

2. Select [Printers and Faxes].

3. Click [Add Printer] and then click [Next].

4. Select [Local printer attached to this computer], clear the [Automatically detect and install my Plug and Play printer] check box, and then click[Next].

5. Select [Create a New Port] and select [Type Standard TCP/IP Port].

6. Click [Next].

7. [Welcome to the Add Standard TCP/IP Printer Port Wizard] appears.

8. Click [Next] and provide the following information. Enter [Printer name or IP address], for example: *172.168.1.31.* If the above IP address is entered, the Port Name will default to *IP_172.168.1.31*.

9. Click [Next]. [Additional Port Information Required] is displayed.

10. Under [Device Type], select [Custom] then [Settings].

11. Ensure [Protocol] is set to [Raw].

12. Ensure [Port Number] is 9100 and [SNMP Status Enabled] is deselected.

13. Click [OK].

14. Follow the instructions on the screen to finish installing the printer.

IPP

1. Select [Start], [Settings], [Control Panel]. and [Printers and Other Hardware].

2. Select [Printers and Faxes].

3. Click [Add Printer] and then select [Next].

4. Select [A network printer, or a printer attached to another computer].

5. Click [Next].

6. Select [Connect to a printer on the Internet or on a home or office network] and type printer URL in text box, e.g. *http://172.168.1.31/ipp/lp*.

7. Click [Next].

8. Install printer driver

Novell Netware IPX

IPX is used with Novell NetWare. The OkiLAN supports Novell 3, 4, 5 and 6, and allows print jobs to be directed to the appropriate Novell print queue. Please refer to the relevant section of this manual for additional information.

NetBEUI Protocol

NetBEUI is a protocol that was designed for use on small workgroups or LANs. Within Windows, NetBEUI is used for file and printer sharing between computers. It provides a simple method of printing, but the protocol does have limitations and is not as robust as TCP/IP or IPX. Typically it is employed in small or home networks.

Network Printer Settings

There are three configurable items under NetBEUI within the printer. These can be configured using the standard set-up utility described in Chapter 1.

Computer Name:	Name assigned to the printer
Workgroup:	PrintServer[1]
Comment:	User definable description

[1]Although the workgroup name can be changed, it is recommended that it remain PrintServer.

Although there are some differences in configuration options between the various Windows platforms, the procedure for printing using NetBEUI is the same.

Please ensure the NetBEUI protocol has been installed in Windows. This can be confirmed by checking the network settings. If NetBEUI has not been installed please refer to the section below.

The relevant Windows installation CD-ROM may be required and you should follow the on-screen dialogue box prompts.

Windows 95/98/Me

1. Click [Start] →[Settings] →[Control Panel].

2. In the Control Panel double-click on the [Network] icon.

3. In the Network dialogue box select [Configuration Panel].

4. If [Client for Microsoft Networks] is not listed, click [Add].

5. In the [Select Network Component Type] dialogue box, select [Protocol] then [Add].

6. In the [Select Network Protocol] dialogue box, select [Microsoft] from the list of manufacturers, then select [NetBEUI] from the list of [Network Protocols] and then click [OK].

7. The Windows installation CD-ROM may be required. Follow the remaining dialogue box prompts.

Windows NT 4.0

1. Click the [Start] button, select [Settings] and then [Control Panel].

2. Double-click the [Network] icon.

3. In the [Network] dialogue box, click the [Protocols] tab.

4. If the [NetBEUI Protocol] is not listed, click [Add].

5. In the [Select Network Protocol] dialogue box, select [NetBEUI Protocol] and click [OK].

Windows 2000

1. Click the [Start] button, select [Settings] and then click [Network and Dial-up Connections].

2. Double-click the [Local Area Connection] icon. In the [Local Area Connection Status] dialogue box, click [Properties].

3. In the [Local Area Connection Properties] dialogue box, if the [NetBEUI Protocol] is not listed, click [Install].

4. In the [Select Network Component Type] dialogue box, select [Protocol] and click [Add].

5. In the [Select Network Protocol] dialogue box, select [NetBEUI Protocol] and click [OK].

6. Click [Close] in the [Local Area Connection Properties] dialogue box.

7. Click the [Close] button in the [Local Area Connection Status] dialogue box.

Windows XP

Although you can install the NetBEUI protocol into Windows XP, it is not supported. You should be able to use NetBEUI on LAN connections although you will not be able to use this on Remote Access Service Connections.

1. In the [Start] menu, select [Settings] then [Control Panel].

2. Double-click [Network Connections].

3. Right-click the adapter you wish to add NetBEUI to and then click [Properties].

4. On the [General] tab, select [Install].

5. Select [Protocol] and then [Add].

6. Select [Have Disk] and insert your Windows XP CD-ROM. Open the Valueadd\msft\net\netbeui folder, click the *Netnbf.inf* file and then click [Open]. Now the printer has been configured and NetBEUI has been installed; you can configure Windows to print over the network.

Printer driver configuration

In the following example, the printer has been configured as follows:

Computer Name:	OL07DB85
Workgroup:	PrintServer
Comment:	EthernetBoard OKILAN

1. Set up the printer driver as the default local printer.
2. In the [Start] menu, select [Settings] then [Printers].
3. Select the relevant printer driver, then [Properties].
4. Click on the [Details] tab in the printer driver.
5. Select [Add Port]. Select [Network] and click [Browse].
6. Double-click [Entire Network], [PrintServer] and [OL07DB85].
7. Select [Prn1] and click OK.
8. Check that [Network] is selected and click [OK].
9. Select [Apply] and [OK] to close [Properties].

> Printing can be carried out using the application software.

> The Master Browser function manages machine information from the same Workgroup, and replies to summary requests from other workgroups.

> The Master Browser function operates only if the Workgroup name is PrintServer.

> The Master Browser function can only manage this network card. If the PrintServer name is put into another Workgroup, the network card will not be able to find it on the network.

> A maximum of eight Ethernets can be managed by the Master Browser function.

> Printing cannot be carried out and an error message appears when jobs from other users (including other protocols) are being printed.

Novell NetWare

Overview

The OkiLAN print server supports the Novell NetWare environment.

It is necessary to have NetWare Administrator or Supervisor rights to change the configuration. This guide is for NetWare administrators. It should be read in conjunction with the relevant Novell NetWare manual. The latest Novell service packs and Novell client versions should be installed.

Supported Versions and Modes

NetWare 3.11 +	Bindery
NetWare 4.1+	Bindery and NDS
NetWare 5+	Bindery, NDS and NDPS
NetWare 6	Bindery, NDS, NDPS and iPrint

In NDS, the printer can be configured to work in either print server mode or remote printer mode.

Remote Printer Mode

Remote Printer Mode requires a connection to be made to a workstation running Pserver. Print jobs are received from the file server via the NetWare print server. The network interface card emulates the workstation on which the NetWare Rprinter operates. Remote Printer Mode adds additional traffic to the network and is slower than Print Server Mode but does not require any additional licenses.

Print Server Mode (Recommended)

In Print Server Mode, the file server is logged in and the printer queue is repeatedly polled to determine whether a print job exists. The NetWare print server or workstation where Pserver runs is emulated. This enables high speed printing without applying a load to the network. Print Server Mode requires a single user NetWare license.

Printing the Network Interface Card Configuration Sheet

The printer's configuration page reports information that is required for NetWare configuration. To print a configuration page, while the printer is switched on, depress the NIC's push-button for two seconds and then release.

The Ethernet address (MAC Address) of the printer can be found on the self-diagnostic printout, which can be printed by pressing the push-button on the network card for two seconds and then releasing it.

The first six digits of the Ethernet address are the same for all OkiLan print servers. The last six digits of the Ethernet address are unique to each card

This is all the information that is required to setup the OkiLan for NetWare.

Setup Utilities

Use *NWAdmin32* or the *Pconsole* utility to create and setup NetWare printer objects. Please refer to Novell documentation for instructions on how to achieve this.

Use the OKI Network Card Setup Utility (Quick Setup) or other printer manager software, (*AdminManager*, Web browser, etc.) to configure the network interface card. For instructions please refer to the Configuration Utility section and online help.

UNIX

Overview

The OkiLAN print server supports many protocols such as LPD, FTP, TELNET, SNMP and IPP, and works within the UNIX environment.

To use the network card within the UNIX environment, the following steps are required:

Configuration

Network Interface card setting

The first step in installing the network card under UNIX is to set up the IP address, Subnet Mask and Gateway. This section explains one way to set them up from a UNIX workstation.

> The network addresses used in this manual are shown as examples only. Network addresses used in your installation must be generated for your own network.

> Log in as [root] to change the configuration of the Print Server. By default, there is no root password.

> If an incorrect IP address, Subnet Mask or Gateway is entered, the network may go down or other damage may occur. Check the address with your network manager.

The following explanation uses Sun Solaris 2.8 (Solaris 8) as an example. The actual commands may differ between versions of UNIX, so refer to the workstation manuals for more information.

1. Log in as root to the workstation

   If you do not have superuser rights, the network manger should conduct the configuration.

2. If the print server does not have an IP addresses already assigned, use the arp command to set a temporary IP address.

Example: for IP address 172.68.20.127 and network card address 00:80:92:01:00:D2

arp –s 172.168.20.127 00:80:92:01:00:D2 temp

The Ethernet address (MAC address) 00:80:92:01:00:D2 in the above example can be determined from the network card self-diagnostic test which can be printed by pressing the push-button on the network card for two seconds and then releasing it.

3. Use the ping command to confirm the connection with the network interface card.

   Example: for IP address 172.168.20.127

   # ping 172.168.20.127

   If there is no reply, there is a problem with the configuration of the IP address (the IP address has been already set manually or by the DHCP/RARP server), or with the network. Reset the network interface card settings to default and try to set temporary IP address.

   If you still have the problem after resetting the network interface card, consult the network manager.

4. Log in to the network interface card using TELNET.

   Example: Logging in to IP address 172.168.20.127

   #telnet 172.168.20.127

   Trying 172.168.20.127

   Connected to 172.168.20.127

   Escape character is '^]'.

   EthernetBoard OkiLAN

login: root

'root' user needs password to login.

password: <CR>

User 'root' logged in.

No. Message Value (level .1)

1 : Setup TCP/ IP

2 : Setup SNMP

3 : Setup NetWare

4 : Setup EtherTalk

5 : Setup NetBEUI

6 : Setup printer port

7 : Display Status

8 : Setup printer trap

9 : Setup SMTP Email

97 : Reset to factory set

98 : Quit setup

99 : Exit setup

Please select (1- 99)?

5. Type 1 and press the [Enter] key. Perform the following settings:

   Please select (1- 99)? 1

No. Message Value

1 : TCP/ IP protocol : ENABLE

2 : IP address : 172.168.20.127

3 : Subnet Mask : 255.255.255.0

4 : Gateway address : 172.168.20.1

5 : RARP protocol : DISABLE

6 : DHCP/ BOOTP protocol: DISABLE

7 : root password : " "

99 : Back to prior menu

Please select (1- 99)?

6. Log out from the network interface card. Turn the printer off and on again to validate the following settings.

Operating system configuration

This section explains how to configure a printer for major UNIX operating systems.

Sun OS 4.x.x (BSD) configuration

The following explanation uses Sun OS 4.1.3 and an OKI printer as examples. The absolute path of commands and the configuration method may differ between OS versions, so refer to the workstation manuals for more information.

If an incorrect IP Address, Subnet Mask or Gateway is entered, the network may go down or other damage may occur. Check the address with the network manager and confirm that the IP address of the printer has been set.

1. Log in as root to the workstation.

   If you do not have Superuser rights, the network manager should conduct the configuration.

2. Register the IP address of the network card and the host name in the */etc/hosts* file.

   Example: for IP address 172.168.20.127 and host name PRINTER

   172.168.20.127 PRINTER

3. Use the ping command to confirm connection with the network card.

   Example: for host name PRINTER

   # ping PRINTER

   If there is no reply, then there is a problem with the configuration of the IP address (the IP address has been already set manually or by the DHCP/RARP server) or with

the network. Reset the network interface card settings to their defaults and then try to set a temporary IP address. If you still have the problem after resetting the network interface card, consult the network manager.

4. Register the printer in the */etc/printcap* file.

   Example: for host name PRINTER, to create a queue called PRINTER_lp

   PRINTER_lp: \

   :lp=:rm=C7400:rp=lp:\

   :sd=/usr/spool/PRINTER_lp:\

   :lf=/usr/spool/PRINTER_lp/OKIPRINTER_lp_errs:

   PRINTER_lp The name of the printer queue

   lp: The name of the device used to connect to the printer. Does not need to be specified for a remote machine.

   rm: The name of the host of the remote printer. This should be the same as the name added to the */etc/hosts* file.

   rp: The name of the printer on the remote printer. It should be lp.

   sd: The spool directory. Give the absolute path.

   lf: The error log file. Give the absolute path.

5. Create the spool directory and error log file.

   Example: for spool Directory PRINTER_lp and Error Log file OKIPRINTER_lp_errs

   # mkdir /usr/spool/PRINTER_lp

   #touch/usr/spool/PRINTER_lp/PRINTER _lp_errs

chown –R daemon /usr/spool/PRINTER_lp

chgrp –R # daemon /usr/spool/PRINTER_lp

6. Check that lpd (printer daemon) is activated.

   # ps aux | grep lpd

7. If lpd is not running,start it by logging in as superuser and executing

   # /usr/lib/lpd &

Sun Solaris 2.x configuration

Admintool is normally used to register remote printers on Open Windows. However, it cannot be used here, as the data recipient and queue have the same name. The procedure below must be used for registering a remote printer.

If Solaris 2.x is connected to the remote printer for a long period according to the system specifications, errors and forced disconnection may occur. Therefore, if paper tearing, off-line and other errors result in waiting time, printing may have to be aborted.

If an incorrect IP address is entered, the network may go down or other damage may occur. Configure after consulting the network manager.

The following explanation uses Sun Solaris 2.8 (known as Solaris 8) and an OKI printer as examples. The absolute path and method of configuring commands may differ in other versions of the OS. Refer to the workstation manual for more details.

1. Confirm that the IP address of the printer has been set.

2. Log in as [root] to the workstation. If you do not have superuser rights, the network manager should conduct the configuration.

3. Register the IP address of the network card and the host name in */etc/hosts* file.

   Example: for IP Address 172.168.20.127 and host name PRINTER

   172.168.20.127PRINTER

4. Use the ping command to confirm connection with the network card.

   Example: for host name PRINTER

   # ping PRINTER

   If there is no reply, there is a problem with the configuration of the IP address (the IP address has been already set manually or by the DHCP/RARP server), or with the network.

   Reset the network interface card settings to default and try to set temporary IP address. If you still have the problem after resetting the network interface card, consult the network manager.

5. Register the network card as a remote printer server.

   Example: for host name PRINTER

   a. Stop the print scheduler.

   # usr/sbin/lpshut

   b. Create the printer queue.

   **# /usr/sbin/lpadmin -p PRINTER_lp -v /dev/null **

   m netstandard -o dest=PRINTER:lp

   -o protocol=bsd

   c. Set the queue to accept PostScript print jobs.

 # /usr/sbin/lpadmin -p PRINTER_lp -I postscript

d. Start the print scheduler.

 # /usr/sbin/lpsched

e. Activate the print queue.

 # /usr/sbin/accept PRINTER_lp

f. Enable the print queue

 # /bin/enable PRINTER_lp

To customize output, for example to add additional commands at the start of each print job, you can edit a copy of the netstandard model file then add it using the lpadmin command

Example: for printer PRINTER_lp, with model file called PRINTER0_model

 # /usr/sbin/lpshut

 # /usr/sbin/lpadmin –p PRINTER_lp –m PRINTER_model

 # /usr/sbin/lpsched

HP-UX 10.x configuration

If an incorrect IP Address, Subnet Mask or Gateway is entered, the network may go down or other damage may occur. Check the address with the network manager.

The following example uses HP-UX10.20 and an OKI printer as examples. The absolute path and method of configuring commands may differ in other versions of the OS. Refer to the workstation manual for more details.

1. Confirm that the IP address of the printer has been set. See network interface card IP address configuration for more information.

2. Log in as [root] to the workstation. If you do not have superuser rights, the network manager should conduct the configuration.

3. Register the IP Address of the network card and the host name in the /etc/hosts file.

   Example: for IP Address 172.168.20.127 and host name PRINTER

   172.168.20.127 PRINTER

4. Use the ping command to confirm connection with the network card.

   Example: for host name PRINTER

   # ping PRINTER

   If there is no reply, there is a problem with the configuration of the IP address (the IP address has been already set manually or by the DHCP/RARP server), or with the network. Reset the network interface card settings to default and try to set a temporary IP address. If you still have the problem after resetting the network interface card, consult the network manager.

5. If remote spooling is not already enabled on the HP-UX machine, carry out the following configuration.

   a. Stop the printer spooler.

      # /usr/sbin/lpshut

   b. Add the following line to the */etc/inetd.conf* file and register the remote spooler.

      printer stream tcp nowait root /usr/sbin/rlpdameon –I

   c. Restart inetd

/etc/inetd –c

4. Register the remote printer

   Example: setting up a queue called PRINTER_lp to print to host PRINTER

   a. Register the remote printer.

   # /usr/sbin/lpadmin -pPRINTER_lp -v /dev/null

   -mrmodel \-ormPRINTER -orplp -ocmrcmodel

   -osmrsmodel -ob3

   b. Activate the print queue.

   # /usr/sbin/accept PRINTER_lp

   c. Enable the print queue.

   # /bin/enable PRINTER_lp

   d. Enable the printer spooler.

   # /usr/sbin/lpsched

To customise output, for example, to add additional commands at the start of each print job, you can edit a copy of the */usr/spool/lp/model/rmodel* model file then add it using the *lpadmin* command.

Example: for printer PRINTER_lp, with model file called PRINTER_model

 # /usr/sbin/lpshut

 # /usr/sbin/lpadmin –pPRINTER_lp –mPRINTER_model

 # /usr/sbin/lpsched

AIX 4.1.5 configuration

The following explanation uses AIX4.1.5 and an OKI printer as examples. The absolute path of commands and the method of configuring may differ with the OS version. Refer to the workstation's manual. If an incorrect IP address is entered, the network may go down or other damage may occur. Configure after consulting the network manager.

1. Log in as [root]. If you do not have superuser rights, the network manager should conduct the configuration.

2. Register the IP address and the host name in the */etc/hosts* file.

   Example: for IP Address 172.168.29.127 and host name okiprinter

   172.168.20.127 PRINTER

3. Use the ping command to confirm connection with the network card.

   Example: for host name okiprinter

   # ping PRINTER

If there is no reply, there is a problem with the configuration of the IP address (the IP address has been already set manually or by the DHCP/RARP server), or with the network. Reset the network interface card settings to default and try to set a temporary IP address. If you still have the problem after resetting the network interface card, consult the network manager.

4. Register the host that was previously registered as the print server.

   Example: for the OKI printer registered as the print server

   a. Add the print server.

   # ruser –a –p okiprinter

b. Activate the remote printer daemon.

 # startsrc –s lpd

 # mkitab 'lpd:2:once:startsrc –s lpd'

3. Add the print queue using the *smit* command.

   a. Activate the *smit* command and convert to the item [Add print queue].

   # smit mkrque

   b. Select [remote] (the printer connected to the remote host) from [Type of connection].

   c. Select [Standard procedure] from Type of remote print.

   d. Carry out the following settings in [Add a standard remote print queue]. If the configuration differs from below, configure according to environment.

   Example: fr direct output port lp with print queue okiprinte_lp and print server okiprinte

   Queue to be added **"printer_lp"**

   Host name of the

   remote server **"printer"**

   Queue name of the

   remote server **"lp"**

   Type of print spooler

   of the remote server **"BSD"**

   Description of printer name

of the remote server "Optional comment"

LPD Printing

Line Printer Daemon (LPD) is the most common protocol for printing with TCP/IP to a network printer. Refer to the workstation's manual for details of *lpr* and *lp* commands. The following explanation in this section uses the printing of print file test.prn with printer name PRINTER_*lp* as an example.

Logical printers

The OkiLAN print server includes three logical printers.

> lp must be used for printing a file created using the printer driver.

> *sjis* must be used for printing a text file of Shift JIS Kanji code.

> *euc* must be used for the printing a text file of the EUC Kanji code.

Logical printer	Printer function
lp	For direct output
sjis	For Shift JIS Kanji converted output
euc	For EUC Kanji converted output

> sjis and euc function only as PostScript printers.

BSD-based UNIX

Print using the *lpr* command.

 # lpr –PCprinter_lp test.prn

If the lprm command is used, the print job is cancelled.

Example: To delete a print job (Job ID 123) on the okiprinter_lp

 # lprm –PCprinter_lp 123

Verify the printer status using the *lpq* command.

> The result of *lpq* may not be displayed correctly depending on UNIX operating system specification.

> While the short format of *lpq* is a UNIX compatible format, the long format is unique to the OkiLAN print server.

Example of the short format: # lpq –PCprinter_lp

Example of the long format: # lpq –l -PCprinter_lp

System V-based UNIX

Print using the *lp* command.

lp –d Cprinter_lp test.prn

Delete a print job using cancel command.

Example: To delete a print job (Job ID 456) in the printer_lp

 # cancel Cprinter_lp -456

Verify the printer status using the *lpstat* command.

 # lpstat –pCprinter_lp

> The result of *lpstat* may not be displayed correctly depending on UNIX operating system specification (e.g. Solaris 2.x).

FTP printing

FTP (File Transfer Protocol) is used for transferring a file with TCP/IP. If the print data is sent to a logical printer via FTP, it is printed.

Refer to the workstation's manual for details of the ftp command. The following explanation uses print file *test.prn* with printer name okiprinter_lp as an example.

Logical directories

The OkiLAN print server includes three logical directories.

lp must be used for printing a file created using the printer driver.

sjis must be used for printing a text file of Shift JIS Kanji code.

euc must be used for the printing a text file of the EUC Kanji code

Logical directory	Printer function
lp	For direct output
sjis	For Shift JIS Kanji converted output
euc	For EUC Kanji converted output

> jis and euc function only as PostScript printers.

> You can not send data to the root directory.

1. Login to the network interface card.

   When printing with *ftp*, use any values for name and password. However, if the user name is [root], the password set under TELNET or the utility are required. See the appropriate section for details.

   Example: Logging in with host name printer (or IP address 172.168.20.127).

   # ftp printer (or ftp 172.168.20.127

   Connected to Cprinter

   220 EthernetBoard OkiLAN Ver 1.1.0 FTP Server

   Name (Cprinter:root) : ***root***

331 Password required.

Password:<*CR*>

230 User Logged in

ftp>

The network card logical directory structure is hierarchical. Move to the logical directory; it is not possible to output print data to the root directory.

2. Move to the preferable logical directory using the *cd* command.

   Example: moving to the lp directory and confirming the current directory.

   ftp> *cd /lp*

   250 Command OK.

   ftp> *pwd*

   257 "/lp" is current directory

   ftp>

3. Configure the transfer mode

   There are two types of transfer mode: BINARY mode, in which the file contents are output as it is and ASCII mode, which converts the LF code to the CR+LF code. If a binary file converted by the printer driver is transferred, the transfer mode has to be BINARY mode.

   Example: changing transfer mode to binary mode and verifying the current mode

   ftp> *type binary*

200 Type set to I.

ftp> *type*

Using binary mode to transfer files.

ftp>

4. Transfer the print data to the network card using the *put* command. Two methods of file transfer using the *put* command are available.

   Example: transferring print data test.prn

   ftp> *put test.prn*

   Example: transferring print data specified by absolute path/ users/test/test.prn

   ftp> *put /users/test/test.prn /lp*

5. Logout from the network card using the quit command

   ftp> *quit*

   Three states can be verified using the quote command *stat*: the IP address, login user name and transfer mode. In addition, printer status can be verified by specifying the directory after the stat (lp, sjis, euc).

   Example: displaying network card status

   ftp> *quote stat*

   211-FTP server status:

   Connected to: 172.168.20.10.000.00

   User logged in: root

   Transfer type: BINARY

Data connection: Closed.

211 End of status.

ftp>

Example: displaying the network card status (directory name: lp)

ftp> *quote stat /lp*

211-FTP directory status:

Ready

211 End of status

ftp>

Apple® Macintosh®

Overview

The OkiLAN print server supports the Apple Macintosh AppleTalk environment. This guide is for administrators and it should be read in conjunction with the relevant Macintosh manual. The latest Macintosh service packs should be installed.

Supported Versions

Mac OS X.1 and forward are supported.

Printing the Network Interface Card Configuration Sheet

The printer's configuration page reports information that is required for Macintosh configuration. To print a configuration page, while the printer is switched on, depress the NIC's push-button for two seconds and then release.

The information that you require is the printer's Ethernet address (MAC address). It is displayed at the top of the first page under the title *General Information*.

The first six digits of the Ethernet address are the same for all OkiLAN print servers. The last six digits of the Ethernet address are unique to each card.

This is all the information that is required to setup the OkiLAN print server for Macintosh.

Installation

Install the Driver

1. Place the CD, supplied with your printer, in the CD-ROM drive.
2. Double-click the icon that appears on the desktop.
3. Open the MAC folder.
4. Double-click the Printer Installer icon, click Continue.
5. Installer displays with the driver selected.
6. Select any utilities you want to install. Click Install.

Macintosh Printer Setup

OS X.1 and above

In Mac OS X you use the Print Center to setup network printers.

1. Run the Print Server or Print Setup Utility.
2. Select OKI TCP/IP from the drop-down menu.
3. Enter the printer IP address.
4. From the Printer Model drop down menu, select your printer model.
5. Click Add.
6. Quit the Print Center.

Troubleshooting

The network addresses used in this manual are shown for example only. Network addresses used in your installation must be generated from your own network.

Self-diagnostic test

Printer does not print.

Ensure the printer emulation is set to PS (if available) or Automatic.

NG is printed in the Self-diagnostic test.

Confirm that the NIC is installed correctly in models that require an optional NIC card and turn the printer off and on again.

Ensure the network cable is correctly connected and connect to a different network segment, rerun the test and see if this cures the fault.

EEPROM Check registers NG.

Confirm that the NIC is installed correctly and turn the printer off and on again.

Initialize the NIC.

TCP/IP

Printer cannot find the network interface card.

Turn the printer off and on again.

Confirm the network interface is enabled on the printer.

Check there is a response to the interface card command.

Check the network cable is correctly connected.

Change the cable and try again.

Run the Self-diagnostic test.

Check the IP Address, Subnet Mask and Gateway are correct.

Check that the TCP/IP protocol is set to Enable.

Reset the network interface card to factory default settings.

If DHCP, BOOTP and RARP are not used, ensure they have been set to Disable.

Cannot print with lpr and ftp.

Turn the printer off and on again.

Check there is a response to the ping command.

Check the network cable is correctly connected.

Change the cable and try again.

Check the host name and IP address are configured in the workstation.

Check the printer port name is configured in the workstation.

There are three port names: lp, euc and sjis. Use lp by default as euc and sjis are specific to printers with PostScript available.

Incorrect User name on the banner page.

If printing with lpr, the User name printed is unknown and the Filename printed is the Spool file name.

If printing with FTP, the User name printed is the User name entered during FTP login and the File name printed is the Transmitted file name. If the Print Directory name is indicated in the put command, the File name is not printed. The Printer name printed is the Logical Directory name.

NetWare

Printer cannot find the network print server.

Turn the printer off and on again.

Confirm the network interface is enabled on the printer.

Check the network cable is correctly connected.

Change the cable and try again.

If the standard configuration utility is used, check the NetWare network number in the environment settings.

If the NetWare protocol is disabled, set it to Enable.

Reset the network interface card to factory default settings.

The network print server is identified by the setup utility but not by the NetWare server.

Start up the NetWare server and check the NIC configuration.

Check the NSAP packet on the NetWare server is not set to Disable.

Remote Server mode

Check the correct print server is operating on the file server.

Check the Print Server name operating on the File Server and the Print Server name set in the NIC are the same.

Check the Printer name displayed in the Print Server monitor of the File Server and the NetWare Port name set in the NIC are the same. If there are multiple network interface cards, configure the NetWare Port names to be different.

Print Server mode

Check the File Server name set in the NIC and on the File Server are the same.

Check the Printer name set in the File Server and the NetWare Port name set in the NIC are the same. If there are multiple NICs, configure the NetWare Port names to be different.

Check the NetWare login password is correct.

Check the Machine name is the same as the Print Server name set in the File Server.

Printer does not print.

Check the network cable is correctly connected.

Change the cable and try again.

Turn the printer off and on again.

Check the NIC is connected to the File Server.

Check the printer driver has been mapped to the correct netware queue.

PostScript error occurs if a Banner Page is printed.

A PostScript Banner page cannot be printed in NetWare 3.12 Remote Printer mode. If a PostScript printer is used and a Banner Page is printed, PostScript error is displayed. Turn the banner output Off in the client's printer settings.

EtherTalk

Not identified by the Chooser and the Setup Utility.

Turn the printer off and on again.

Check the network cable is correctly connected.

Change the cable and try again.

If the network resides in a Zone, check the correct Zone name is selected in the Chooser.

Check the Zone name in the utility related to the NIC is the same as the Zone name set in NIC.

Check AppleTalk, which is displayed at the right bottom of the Chooser, is set to Enable. (In some OS versions Network is used instead of AppleTalk.)

Check Ethernet is selected in AppleTalk. (In some OS versions Network is used instead of AppleTalk.)

Check the print driver is selected in the Chooser.

Check the EtherTalk protocol is set to Enable.

Print the NIC settings and confirm that the EtherTalk Port name is not blank.

NetBEUI

The network interface card is not identified.

Turn the printer off and on again.

Check the network cable is correctly connected.

Change the cable and try again.

Check Microsoft network client and NetBEUI have been added to the network section of the control panel.

Check the NetBEUI protocol is set to Enable.

Check the factory setting of the workgroup name is PrintServer and the computer name is ML+ the last six digits of the MAC address.

Check the computer name of the NIC is different from the computer name on the network.

Error writing to Prn1.

Check the printer is online.

If there is an error message indicating the paper has run out, add more paper and cancel the error.

Check whether another user is printing. Print after the other user has finished.

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